TO ASSESS THE EFFECTIVENESS OF MUSIC THERAPY ON PAIN PERCEPTION AND ANXIETY LEVEL IN FIRST STAGE OF LABOUR IN LABOUR WARD AT GOVERNMENT RAJAJI HOSPITAL, MADURAI.

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CERTIFICATE

This is to certify that this dissertation titled**, "TO ASSESS THE EFFECTIVENESS OF MUSIC THERAPY ON PAIN PERCEPTION AND ANXIETY LEVEL IN FIRST STAGE OF LABOUR IN LABOUR WARD AT GOVERNMENT RAJAJI HOSPITAL, MADURAI."** Is a bonafide work done by Mrs.S.Lillypushpam, College of Nursing, Madurai Medical College, Madurai - 20, submitted to the Tamilnadu Dr.M.G.R. Medical University, Chennai in partial fulfillment of the university rules and regulations towards the award of the degree of Master of Science in Nursing, Branch III, Obstetrics and Gynecological Nursing Under our guidance and supervision during the academic period from 2010 – 2012.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

ABSTRACT

Statement of the problem:- To assess the effectiveness of music therapy on pain perception and anxiety level in first stage of labour in labour ward at Government Rajaji Hospital, Madurai.

Objectives:- To assess the level of pain and anxiety among primi gravid mother in first stage of labour for the experimental group and control group. To assess the effectiveness of music therapy in first stage of labour in terms of pain reduction and anxiety in the experimental group.

Materials and methods:- The experimental design adopted for my study is pretest and posttest design. The sample technique using in this study simple random sample. The conceptual framework adopted for my study modified Roy Adaptation Theory. This technique is used in labour ward at Government Rajaji Hospital, Madurai. Music therapy was given to reduce the level of labour pain and anxiety. The pre and post assessment level of labour pain and anxiety was obtained using a modified Combined Numerical Categorical Pain Intensity Scale and modified state trait anxiety scale. The data were analyzed by inferential and descriptive statistical methods.

Result:- In posttest, experiment mothers are having 46.83 anxiety score and control group mothers are having 73.80 anxiety score. 't' test p = 0.001. So statistically significant in control group't' test p = 0.001. In posttest in experimental mother having 4.03 pain score, in control group 6.90. The difference is 2.87 t = 11.98. So statistically significant.

Conclusion:- The mean posttest level of pain and anxiety among primi gravid mothers in experimental group was lower than the mean posttest level in control group. So music therapy is effective in reduction of pain perception and anxiety level among primi gravida mother

INTRODUCTION

REVIEW OF LITERATURE

RESEARCH METHODOLOGY

DATA ANALYSIS AND INTERPRETATIONS

DISCUSSION

SUMMARY, RECOMMENDATIONS, IMPLICATIONS, LIMITATIONS AND CONCLUSION,

BIBLIOGRAPHY

APPENDICES

CHAPTER - I

INTRODUCTION

"A woman giving birth to a child has pain because her time has come; but when her baby is born she forgets the anguish because of her joy that a child is born into the world."

(John 16:21)

Pregnancy is a special event. The labour and birth process is an exciting, anxiety provoking situation for the women and her family. The time of labour and birth, though short, in comparison with the length of pregnancy, is the most dramatic and significant period of pregnancy for the expectant women.'

Most pain during childbirth results from normal physiologic events. If nurses understand the nature and effects of pain during the labour process they will be better prepared to provide supportive care, Physical comfort includes offering a variety of non- pharmacologic and pharmacologic interventions.

It is important to alleviate pain, but commonly it is not the amount of pain the women experience, but whether she meets her goals for herself in coping with the pain that influences her perception of the birth experience as good or bad.

The labour pain as stimuli of receptive neurons arising from contractions of the uterine muscles, which is referred to as the visceral, pelvic and lumbar and sacral areas. To date, labour pain management studies have focused on use of drugs that affect sensory awareness of pain, which may have the additional effect of impeding woman's active participation in giving birth (Chapman, 2003).

All women experience labour differently and pain associated with labour is influenced by variables such as parity, age, racial, cultural, and ethnic factors, coping mechanism (Hanna, Leena Lickeneun, 2003).

Geissbueller and Berhard (2002), conducted a study to assess concerning quantity and quality of childbirth related fear among different parity and its possible relation to attended birth preparation classes among the women delivered in a hospital setting that practice modern obstetrics combined with alternative delivery methods. In this study, the most frequent fear mentioned by mothers was labour pain (40%).

Childbirth represents the most painful events in most of women's life time. Pregnant women has to be prepared for reality of childbirth and this will make them to have more control over their birth and with lessen the feeling to shock and fear that they experience. The parents who had childbirth education effectively dealt with the challenges and stresses of pregnancy and labour and were able to apply knowledge they had learnt and had the ability to face the new phase of life as a parent (Jesemy, 2002).

Simkin, Penny .P 0' Hara, (2002), conducted a study on non pharmacologic relief of pain during labour. The report shows that these methods reduce pain, increase maternal satisfaction and improve other obstetric outcomes, and reduces labour pain.

According to World Health problem that is neglected in for this negligence may be due to accurate peacetime of pain, poor pharmacokinetics and equianalgesic dose, and lack of professional accountability (Jadad and Brownman, 1998).

BACKGROUND OF THE STUDY

Pain in labour is nearly universal experience for child bearing women. Pain and its relief for women in labour has been a subject of interest since the dawn of mankind. Child birth has been associated with pain and throughout history measures had been introduced to help relieve it. Pain can vary during different times in the same labour and during different birth by the same woman. Music therapy has the potential benefits such as decreasing the intensity of pain, relieving the muscle spasm, increasing physical activity, promoting general relaxation and reducing anxiety.

In midwifery, pain would be defined as ‘a complex, personal, subjective, multifactorial phenomenon which is influenced by psychological, biological, socio cultural and economical factors’. **(Fraser and Cooper, 2005).**

A variety of factors affect the intensity and amount of pain experienced by women in labour. These include: perception of pain, tolerance of pain, coping mechanisms, individual meaning of pain, expression of pain, communication of pain, cultural characteristics and environment of pain.

The biological, psychological, social, spiritual, cultural and educational dimensions of each woman have an impact on how they express themselves and indeed how they perceive pain during labour. The challenge of midwifery is to provide adequate and adapted care for each childbearing woman. The essence of midwifery is to be ‘with woman’, providing comfort in labour. Historically, the maintenance of health has been the role of women. **(Kitzinger 2000).**

Fairlie, et al 1999 much midwifery and medical research has indicated that the one-to-one support by a midwife in labour reduces the need of analgesia and improves the birth experience of the mother. It also shortens the length of the labour. Pain control during labour is a woman centered concept. There is much evidence to state that women are not always more satisfied by a birth experience that is pain free.

The pain itself and its severity, plus the side-effects of medication, make it difficult for the woman to maintain control during labour. Women then require care, support, attention and advice at this time. Midwives are therefore required to give control of the pain to women rather than eradicating it and a clear differentiation must be made between the traditional goal of pain relief and the control of pain in labour.

There are many types of non-pharmacological methods of pain control; among those, homeopathy, hydrotherapy, music therapy, transcutaneous electrical nervous stimulation, acupressure technique, application of heat & cold, and Music therapy are the most common and widely applying techniques. Among these methods, Music therapy has the potential benefits such as decreasing the intensity of pain, relieving muscle spasm, increasing physical activity, distracting from pain, promoting general relaxation and decreasing anxiety.

NEED FOR THE STUDY

Child birth is a natural biological process and therefore the pain associated with it is also perceived as normal and natural. The nature of the pain experienced during labour depends on the physical and emotional status of the women.

Labour pain is an excruciating intolerable pain, which results in changes in blood pressure, pulse, respiration, skin colour, pallor and diaphoresis. The mother with labour pain may have bouts of nausea and vomiting and she may have certain affective expressions which include increasing anxiety, writhing, crying, groaning, gesturing (hand clenching and wringing) and excessive muscular excitability throughout the body.

Severe labour pain may also cause several problems to the fetus such as abnormal heart rate patterns, lack of oxygen, position changes and may cause a cesarean delivery. If the fetus is already stressed greater amounts of the medication are "trapped" in the fetal circulation, it may lead to more pronounced newborn effects**.**

Tzeng Y. L. and Su T.J. (2008) studied on low back pain during labour among 93 low risk women, in which 75.3% of the participants suffered episodes of low back pain during labour. Pain as well as the location of the pain intensified as labour progressed. The type of low back pain in 54.29% of women in labour was muscle soreness and pain, where 45.71% women were continuous.

Nowadays many number of non-pharmacological (complementary and alternative medicine) therapies like Music therapy, therapeutic touch, hydrotherapy, music, heat application and cold application are being used to reduce pain or distress. Non-pharmacological therapies are gaining popularity and finding a more substantial place in health care. **(**Williams J. and Mitchell M. 2007; Ernst and White, 2000).

In 1995 **The Alternative Health Information Bureau** with **The Nursing Times**, investigated the largest survey of nurses in respect to alternative and complementary therapy ever undertaken. A total of 393 nurses responded to the survey. The therapies were used to help to treat a variety of conditions from arthritis to cancer, but the most common conditions were stress, relaxation, anxiety, pain relief, insomnia, pregnancy and palliative care. 88.5% of nurses, who has used

complementary therapies, stated that they had seen a definite improvement in the patient's condition as a result of the therapy. 88% stated that they recommend complementary / non-pharmacological therapies to patients (often - 30%, occasionally - 58%). It indicates that non-pharmacological therapies (especially Music therapy, aromatherapy and therapeutic touch) are being used widely by health care professionals.

Birth is a family affair. The reproductive health of the total family is the corner stone of a healthy society. Many women approach childbirth with fear of pain. The process of labour and the forthcoming birth may produce normal anxiety that is no more than a healthy anticipation of the events to come.

Women who come into labour believe that it will be horrible. They are usually afterwards to realize that the agony they expected never be materialized. On the other hand expectation of pain may make women so tense during labour that her pain is worse than it would be, if she was relaxed.

Pregnant women commonly worry about the pain they will experience during labour and child birth and how they will react to and deal that pain. The amount of pain a women experiences during contractions differ according to her expectations and preparation for labour, the length of the labour, the position of the fetus and the availability of support people around her (Saddler, 1988).

Each women comes into labour room with own set of expectation, fears, preparation, pain threshold, personality and behavioural make up and ways of experiencing what is happening to her, which has to be managed effectively according to them. (Vamey, 1999).

The pain involved in labour and birth can sometimes dominate a pregnant women or couples throughout childbirth, particularly as the baby's due date approaches. Providing information during prenatal visits, about natural methods for pain relief as well as the pharmacological options available in her health care setting can help to allay this fear. (Cogan and Janice, 2001).

Music therapy involves music or musical activities to meet certain planned goals. Pain reduction, relaxation and reduced anxiety are among the desired goals. Music therapy can involve distraction from pain increased sense of control, and increased self esteem. (Springhouse and Pennsylvania, 1997).

Music can help to relieve pain. Musically sedated people have been known to need 50% less anesthesia during surgery. Music can be beneficial to people of all ages and can even help medical staff when they were working. Music can be sedative and simulative and can help to lessen pain during childbirth. Music can provide a focus of attention and provide pain distraction or relief for the laboring mother. Music would assist in relaxing the adolescent and taking the mind off from the pain.

Music had been shown to have excellent potential as a conditional stimulus for relaxation. Music can also be used to divert attention away from a pain. While the subjective experience of pain is not reduced, sound stimulus can effectively distract the mother and provide a cognitive strategy for pain control and suppression of pain response. (Cleark, McCorke and Williams, 1981).

UNICEF (2006), analysis states that based on the available data from 74 countries, 79% of births in the developing world was conducted by skilled health personnel's.

As per the Community Medicine Report (2006), in India (Uttar Pradesh), 42% were delivered by normal vaginal delivery and in Tamilnadu 88% mothers were delivered by normal vaginal delivery.

Music stimulates the release of endorphins and reduces the need for analgesic drugs. It distracts the perception of pain and relieves anxiety and depression. Music has played an important role in different cultures since the time immemorial. It has profoundly affected human beings in their physical, mental, emotional and spiritual well beings. This sight covers the importance of music in prenatal and birthing times (Cooper, 1999).

When the investigator worked in labour ward, she was witnessed more than 30 deliveries were conducted each day in that 20 deliveries were normal among the 20 deliveries 10-12 deliveries were Primi mothers and she has also witnessed many mothers with labour pain were more dependent and powerless, not only in managing her pain but in all other aspects of labour and birth.

A wide variety of non invasive coping strategies for women during childbirth includes relaxation, breathing, music, support person, distraction and cutaneous stimulates.

As music found to improve the pain tolerance and emotional well-being, the investigator decided to take up a study to assess the effectiveness of the music therapy in terms of level of pain perception reduction during first stage of labour.

STATEMENT OF THE PROBLEM

To assess the effectiveness of music therapy on pain perception and anxiety level in first stage of labour in labour ward at Government Rajaji Hospital, Madurai.

OBJECTIVES:

1. To assess the level of pain and anxiety among primi gravida mother during first stage of labor for the experimental group and control group.
2. To assess the effectiveness of music therapy during first stage of labour in terms of pain reduction and anxiety in the experimental group.
3. To compare the post test level of pain and anxiety between experimental and control group.
4. To associate the pain and anxiety with selected demographic variable in the experimental group.

HYPOTHESES:

H_1- There is a significant difference in pain and anxiety between pretest and post test among primigravida mother for experimental group.

H_2- There is a significant difference in level of pain and anxiety in experimental and control group.

H_3 - There will be a association between the effectiveness of music therapy with selective demographic variable in experimental group.

VARIABLES OF THE STUDY

Independent Variable

Music therapy

Dependent Variable

Level of pain and anxiety during the active phase of first stage of labour.

OPERATIONAL DEFINITIONS:

Effectiveness:

In this study outcome or result of the music therapy for the primi gravida mothers in terms of reduction pain and anxiety level during first stage of labour as measured by numeric categorical pain rating scale and speil berg anxiety scale.

Primi gravida mothers

In this study mothers who were pregnant for the first time.

Music therapy

Playing the music through ear phone to the primi gravida mother as an intervention to reduce pain and anxiety during the first stage of labour.

Pain perception

In this study pain is a subjective sensation experienced by primi gravida mothers undergoing active phase of first stage of labour as measured by pain assessment scale.

Anxiety

It refers to the generalized feeling of fear and uneasiness of the primigravida mother in first stage of labour as measured by a speil berg anxiety scale.

Pain

In this study an unpleasant bodily sensation produced due to contraction of uterus during labour.

First stage of Labour pain

The part of labor when the cervix dilates fully (to 10 centimeters). The first stage of labor is also called the stage of dilatation.

ASSUMPTION

Music therapy may reduce the pain perception and anxiety level of primi gravida mother after listening to music

DELIMITATIONS

This study is delimitated to a period of four weeks of data collection.

CHAPTER -II

REVIEW OF LITERATURE

Review of literature is a systematic search of published work to gain information about a research topic (Polit and Hungler). Conducting a review of literature is challenging and enlightening experience. Through the literature review, researcher generates a picture of what is known about a particular situation and the knowledge gap that exists between the problem statement and the research subject problem and lays a foundation for the research plan.

The literature review was based on an extensive survey of journals, books and international nursing indicates. A review of research of non research literature relevant to the study was undertaken which helps the investigator to develop deep insight into the problem and gain information on what has been done in the past.

An extensive review of literature was done by investigator to lay a broad foundation for the study and a conceptual framework to proceed with the study under the following heading.

Part - I Literature related to

Section –A: Pain perception and anxiety of labour mother.

Section – B: Music therapy in labour mother

Section – C: Alternative complementary therapy in labour mother.

Part - II Conceptual framework.

SECTION – A: PAIN PERCEPTION AND ANXIETY OF LABOUR MOTHER

Chapman.et.al, (2010) conducted a study to pain as stimuli of receptive neurons arising from contractions of the uterine muscles, which is referred to as the visceral, pelvic and lumbar and sacral areas. To date, labour pain management studies have focused on use of drugs that affect sensory awareness of pain, which may have the additional effect of impeding woman's active participation in giving birth.

Lickeneun.et.al, (2010) conducted a study to all women experience labour differently and pain associated with labour is influenced by variables such as parity, age, racial, cultural, and ethnic factors, coping mechanism.

Berhard.et.al, (2009) conducted a study to assess concerning quantity and quality of childbirth related fear among different parity and its possible relation to attended birth preparation classes among the women delivered in a hospital setting that practice modern obstetrics combined with alternative delivery methods. In this study, the most frequent fear mentioned by mothers was labour pain (40%).

Jesemy.et.al, (2009) conducted a study to a childbirth represents the most painful events in most of women's life time. Pregnant women has to be prepared for reality of childbirth and this will make them to have more control over their birth and with lessen the feeling to shock and fear that they experience. The parents who had childbirth education effectively dealt with the challenges and stresses of pregnancy and labour and were able to apply knowledge they had learnt and had the ability to face the new phase of life as a parent

Penny, P.et.al, (2008) conducted a study on non pharmacologic relief of pain during labour. The report shows that these methods reduce pain, increase maternal satisfaction and improve other obstetric outcomes, and reduces labour pain.

Jadad,Q.et.al, (2008) conducted a study to according to World Health Organization (WHO), pain is indeed a major public health problem that is neglected in both developed and developing countries. The reason for this negligence may be due to various factors including the lack of treatment, in accurate peacetime of pain,

poor pain assessment, lack of clinical knowledge of pharmacokinetics and equianalgesic dose, and lack of professional accountability.

Chicholes.et.al, (2007) conducted a study to the high estimation for the childbirth often result in greater satisfaction and greater sense of fulfillment with the childbirth experience and the women who have lower expectation after less positive perception of their childbirth experience.

Wright.et.al, (2007) conducted a study to comfort in labour is not merely an emotional or physical relieving of malaise or pain. It is complex process in which the midwife combined research based knowledge and skills with warmth, empathy and sensitivity in order to provide a birth environment which is safe, caring and conducive for satisfying birth experience.

Green.et.al, (2007) conducted a study regarding the worries about pain in labour and found that 67% of women were a bit worried, 12% very worried and 23% were not at all worried about the pain of labour.

Lean. L Albers.et.al, (2007) conducted a study to measure the duration of active labour (first and second stages) in low risk women who received intrapartum care from certified nurse midwives in hospitals. The results revealed that the mean length of the active phase at first stage was 7.7 hours for nulli Paras and 5.6 hours for multiparas and the mean length of the second stage was 54 minutes for nulliparas and 18 minutes for multiparas.

Yarrow, J.et.al, (2006) conducted a study to know how the mothers really feel about pain after they have delivered and found that reality of labour pain was bad as been described to them in other. 29% of women said others made to feel like as it was, 31% said others made it seem more painful than it was, and 40% said others accurately described the level of pain.

Segele.et.al, (2006) conducted a study on expectation of labour pain included postpartum women who had delivered single infant at term in one of two hospitals, one in the Netherland and one in Iowa within 48 hrs of delivery. They were asked about their prenatal expectations of pain in labour and measures available for pain relief, and then about their memory of labour pain and whether or not they had received pain medication. The Iowa women, in general expected labour to be more painful than Dutch women and anticipated more often that they would receive medication for labour pain. In virtually the same proportion as anticipated in the Iowa

women did receive analgesia. Result concluded that the Dutch women did not expect labour to be painful, tended not to anticipate receiving analgesia, and usually did not receive any.

Lower Milk.et.al, (2006) conducted a study to the antenatal fear of delivery has the influences of negative delivery experience and possibly finding difficulties in attachment to their children in the immediate postnatal period. It is important to alleviate pain but commonly it is not the amount of pain the women experience but whether she meets the goals for herself in coping with the pain that influences her perception of the birth experience as good or bad.

Pottery and Perry (2005) conducted a study to the pain in childbirth activated the sympathetic nervous system and resulting in changes in blood pressure, pulse, respiration, skin colour and diaphoresis. Labour pain was assessed by using satisfaction questionnaire with 296 samples and declared that nearly half of the women experienced labour pain worse than expected and satisfaction was greater for those with a midwife and for those who felt in control of their pain relieving strategy.

SECTION – B: MUSIC THERAPY IN LABOUR MOTHER

Chin, Pilot Lane.et.al, (2008) conducted a study on musical choices with cultural background. He concluded that each group of people choose the music differently according to their ethnic group. Canadians most frequently choose orchestra music, African and American choose Jazz and Taiwanese choose Harp music.

Caffrey.et.al, (2008) conducted a study to the use of music listening is an effective non invasive intervention designed to assist nurses in creating a healthy environment to promote health and well-being. He demonstrated its effectiveness in reducing pain and anxiety and for more relaxations.

Good. M.et.al, (2008) conducted a study to find the effect of music on sensation and distrust of pain in those primiparous women during the active phase of the labor. The gate control of pain was the theoretical framework for the study. Randomization with a computerized minimization program was used to assign women to a music group (n=55) or a control group (n=55). Women in the intervention group

listened to soft music without lyrics for 3 hours starting early in the active phase of labor. Dual visual analog scales were used to measure sensation and distress of pain before starting the study and at 3 hardly post tests. While controlling for post test scores, one way repeated measures analysis of covariance indicated that those in the music group had significantly less sensation and distress of pain than did the control group F(I,l07)18.69, p<.OO1, effect size =.l5, and F(1,107)14.87, p<.OO1, effect sizel2 respectively. Sensation and distress significantly increased across the 3 hours in both groups (p<.0Ol), except for distress

Rajkumari.et.al, (2007) conducted a study on effectiveness of music therapy in terms of level of pain perception among primi gravida mother in Southern Railway Hospital, Chennai. Based on non probability purposive sampling technique, 30 mothers were allotted for experimental and 30 mothers were allotted for control group. Music therapy was given to assess the level of labor pain perception. The pre and post assessment of level of pain was obtained using a modified combined Numerical Categorical Pain Intensity Scale. The findings of the study showed that comparison of pre and post assessment 't' value in session 1 was 21.53 and in session 11 ,the 't 'value was 21.05 which were significant at p<0.01level. It reveals that the primi gravida mother's pain perception level was reduced after music therapy.

Lilly Podder.et.al, (2005) conducted an experimental study to evaluate the effects of music therapy on anxiety level, pain perception and labor outcome in mothers during first stage of labor in a selected hospital at Kolkota. Post test control group design was selected. Out of 60 samples 30 were to experimental and 30 were assigned to control group. The tool used for the study was a structured interview schedule for demographic data, structured record analysis proforma for labor assessment, State trait Anxiety Scale for anxiety assessment, Numeric Pain Intensity Scale for pain assessment and proforma for fetal and maternal outcome. The study reveals that those who were exposed to music therapy experienced significantly less pain and reduction in anxiety level during labor than the control group mothers.

Clark.et.al, (2005) conducted a study to that music serves several functions in the natural childbirth process including attention focusing, distraction from pain, stimulating pleasure responses, focusing breathing, and as a conditioned stimulus for relaxation. There were 20 subjects in this study. Thirteen experimental subjects

received 6 pre natal music training sessions with a music therapist. Seven control group subjects did not receive the music therapy. After birth, the music therapist administered a childbirth experience questionnaire to each subject. Results indicated that the music group had higher success scores on 5 out of 7 indices of childbirth.

Snyder .M.Chlan.L.et.al, (2005) conducted a study on music as therapy in United Kingdom. It is a qualitative semi structured interview. The efficacy of music in managing pain, in decanting anxiety and aggressive behaviors, and in improving performance and well being have been concreted by nurses and other health professionals. The type of musical selection used, the close of the intervention, number of sessions, the population studied, and the metrological used music was found to be effective in producing positive outcome.

Clark.ME, Corkie MC. et.al, (2005) conducted a study on new clinical music therapy program for application in the labour and delivery setting, and presented results of a preliminary study to evaluate effectiveness of the treatment. A moderate correlation between music home practice and successful childbirth outcome was demonstrated. With frequency, and length of music practice it revealed a significant predictor of success in the childbirth experience.

Scycler.M.Chlan.et.al, (2005) conducted a study on efficacy of music in managing pain, exercising anxiety and aggressive behaviors and improving performance and well being and music was found to be positive outcome.

Woper.et.al, (2004) conducted a study to brain has an internal time keeper which makes us all sensitive to rhythm. When music is played, our brains time to the rhythm and follow it. We get a real sense of well-being and relaxation and tests on bed bound patients. They have shown reduction in blood pressure and stress. The music stimulates the release of endorphins and reduces the need for analgesic drugs. It distracts from the perception of pain and relieves anxiety and depression.

Perline & Viita.et.al, (2004) conducted a study on analgesic effects of listening music. The study identified the results of analgesic effect with preferred music and disliked music. It was found that those who underwent pain stimulus while listening to preferred music reported much lower levels of pain than those who did not like the music to which they listened. The study results revealed that preferred music

reduced the amount of pain experienced and pain involved in labour and birth. The methods for pain relief as well as the pharmacological options available in her health care setting can help these fears and relieve the labour pain.

Eden E.A. et.al, (2003), conducted a study on the effect of music on pain during labour. There were actually two studies conducted. One examined the effects of the music and the other assessed whether imagery training was influenced by music or not. The study revealed that by their music therapy, the labour pain was reduced.

Winslow.et.al, (2002) conducted a study to the mother who has had music therapy treatment for anxiety during labour gave the result of significant changes in the levels of anxiety and an increased sense of control. Numerous studies were cited on the use of music therapy. It successfully decreases anxiety and reduce negative expectation and is effective in relieving mental and physical tension.

Hanses.et.al, (2002), conducted a study on bed side musical care application in pregnancy, child birth and neonatal care. It is an evaluative approach. Music was selected based on the mother's preferences and found that over 705 of participants felt that music aided the relaxation and an overwhelming 100% displayed fewer pain responses during labour while music was played than when it was not. The study revealed that the women had fewer pain responses during their labour, while the music was being played.

Lanser.S.B.et.al, (2001), conducted a study on seven women enrolled in a lamaze class worked with a music program to be used during labour. The music was chosen on a individualized basis and was determined through an interview with the mother in labour. Results concluded that 100% of the participants displayed less pain response when music was played during labour.

Clark M.E.et.al, (2001), conducted a study to determine, whether a positive correlation exists between music therapies assisted child birth and perception of the pain. The results indicate that it does reduce the level of pain perception. Results concluded that music also has the potential for becoming a conditioned stimulus for relaxation. Presence of music during childbirth helps for regularizing the breathing patterns and perceived feelings of support.

SECTION – C: ALTERNATIVE COMPLEMENTARY THERAPY RELATED TO LABOUR MOTHER

Hjelmstedt.A.Shenoy.et.al, (2010) conducted a randomized controlled trial to evaluate the effect of acupressure administered during the active phase of labour on nulliparous women's ratings of labour pain showed the result of reduction in labour pain was found in the acupressure group and was noticeable immediately after treatment (acupressure group vs standard case group p<0.001, acupressure group vs touch group P <0.001.

Peng.T.LixT.et.al, (2010) conducted study on efficacy of transcutaneous electrical nerve stimulation (TENS) on four specify acupuncture points Hegu (Ll4), neigun (Pc6) Danshu (BL19) and neishu (BL12) for reducing pain in labour showed the results of the percentage of VAS score decreased by >25% was 68.6% in the TENS treatment group. Maternal delivery mode and neonatal outcomes were not significantly different between the two groups.

Taginejal.H.et.al, (2010) conducted the study of comparison between Massage and Music therapies to relieve the severity of labour pain showed the result of mothers in the massage therapy group had a Labour Level of pain compared with those in the music therapy group (P=O.009). A significant difference was observed between the two groups in terms of pain severity after intervention (P=0.01) Agonizing, or most severe, labour pain was significantly relived after massage therapy (PrO.00l)

Davim.RM.et.al, (2009) conducted the study to evaluate the effectiveness of non-pharmacological strategies to relieve pain in parturients in labours. With 100 parturients applying breathing exercises, Music relaxation, Lumbosacral massage and showers. A significant difference was observed in pain relief after using non-pharmacological strategies showing reduced pain as cervix dilation increased

Dowswell T.et.al, (2009) conducted study to assess the effects of TENS on pain in labour included 9 studies, with 1671 women. Fifteen examined TENS applied to the back, two to acupuncture points and to the cranium. Results showed that there is a evidence that TENS reduces pain in labour and it does not seem to have any impact. On other outcomes for mother or babies.

L.Kimbera, M.et.al, (2008) conducted a pilot randomized placebo controlled trial. On effectiveness massage therapy for maternal pain and anxiety. Study was conducted to test the effects of massage programme practiced during physiological changes in pain threshold, from late pregnancy to birth on women's reported pain measured by a visual analogue scale (VAS)at 90 mm following birth findings from the study suggest that regular massage with relaxation techniques from late pregnancy to birth is an acceptable coping strategy that merits a large trials with relaxation techn1ques from late pregnancy to birth is an acceptable coping strategy that merits a large trial with sufficient power to detect differences in reported pain.

T.Field, M.Hemandex Reif.et.al, (2008) conducted study among 28 women were recruited from prenatal classes and randomly assigned to receive massage in addition to coaching in breathing and arm their partners during labour, or to receive coaching in breathing alone, the massaged mothers reported a decrease in depressed mood, anxiety and pain, and showed less agitated activity and anxiety and more positive affect following the first massage during labour. Massaged mother had significantly shorter labours a shorter hospital and less postpartum depression.

KimbertMcnabb.et.al, (2007) conducted research on Massage or music for pain relief in labour. Study included 3 arms intervention (massage programme with relaxation techniques,), placebo (Music with relaxation) and control (usual care). Study findings suggest that regular massage with relaxation techniques from late pregnancy to birth is an acceptable coping strategy that merits a large trial with sufficient power to detect differences in reported pain as a primary outcome measure

Burns.E.et.al, (2007) conducted a randomized controlled trial on the use of aromatherapy during labour 251 women randomized to aromatherapy and 262 controls. Main outcome measures were pain perception reduced in aromatherapy group. Studies and literature related to effectiveness of foot massage

PART - II

CONCEPTUAL FRAMEWORK

The conceptual framework and model adopted for the present study is based on the Callista Roy's Adaptation Model (1991). Roy's Model focuses on the concept of adaptation of a person. The theorist concept of nursing person, health and environment are all interpreted to this central concept.

Roy expressed that a person's adaptation level is constantly changing point made up of focal contextual and residual stimuli which represent the present standards. Of the range of stimuli, to which one can respond with ordinary adaptive response may be either on adaptive or ineffective response. Adaptive response was those that promote integrity and help the person to achieve the goals of adaptation. Ineffective response is responses that fail to achieve for threaten the goals of adaptation.

Roy viewed the focal stimuli as internal or external stimulus most immediately confronting the human system.

Contextual stimuli are all other stimuli present in the situation that contributes to the effect of focal stimulus. That is contextual stimuli coiled with the environmental factors that present to the person from with or without, but which are the center of the person attention and or energy.

Residual Stimuli are environmental factors with or without the human system with effect in the current situation that are unclear.

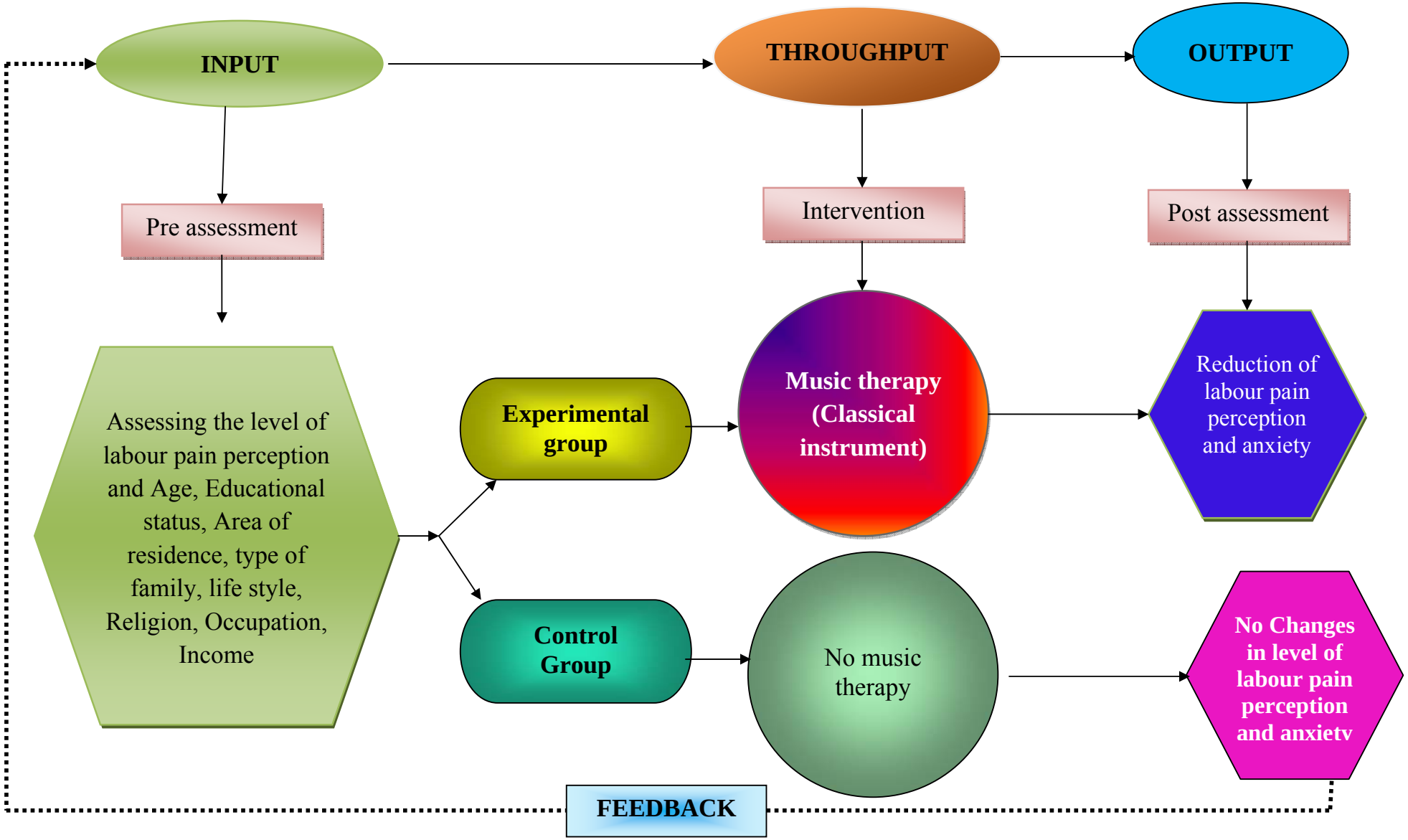
In the present study the investigator considered the primi gravida mothers as 'person' who were waiting for delivery. The environment of the mother is the source of variety of stimuli that either threaten or promotes the persons uniqueness. In this study, the focal stimuli were considered as the identification of demographic variables of primi mothers such as age, educational status, type of family, are of residence and gestational age. The contextual stimuli are all other stimuli present in the situation that investigator considered as the level of pain perception by the primi gravida mothers

during first stage of labour at labour room in terms of assessing the level of pain by using pain assessment scale (modified combined numerical categorical.

The adaptation level is determined by the primi mothers response either positively to environmental changes by assessing in posttest.

The investigator provided music therapy to experimental group for 20 minutes for two times with the interval of ten minutes. The control group was evaluated without music therapy. The adaptive responses among the experimental group promote the integrity of the primigravida mothers which leads to faith in terms of minimizing or decreasing the level of pain perception. In control group the investigator identified the ineffective response that is destruction of the integrity of the primigravida mothers in terms of no change in the level of pain perception.

FIG 1. MODIFIED ROY ADAPTATION MODEL (1991)



CHAPTER - III

RESEARCH METHODOLOGY

This chapter explains the methodology adopted by the investigator to assess the level of pain perception during the first stage of labour at selected hospital in Madurai. It deals with the research approach, research design, research hypothesis, variables under study, research setting, population for the study, criteria for the selection of the sample, sample size, sampling technique, method of developing the questionnaire, description of research instrument and tool, validity of the tool, reliability of the tool, ethical considerations, pilot study, data collection procedure and data analysis procedure.

RESEARCH APPROACH

Quantitative experimental approach was used to assess the effectiveness of music therapy in first stage of labour among primi gravida mothers.

RESEARCH DESIGN

The investigator choose the true experimental pretest and posttest design to assess the effectiveness of music therapy on pain perception and anxiety level during first stage of labour among primi gravida mothers.

Group		**Preassessment on labour pain (O_1)**	**Intervention (Music therapy)**	**Post assessment on labour pain (O_2)**
Experimental	R	O1	X	O2
Control	R	O1	-	O2

EXPERIMENTAL GROUP

R = Random

O_1 = Pretest

X = Intervention

O_2 = Post test

CONTROL GROUP

R=Random

O_1 = Pretest

No Intervention

O_2 = Post test

VARIABLES UNDER STUDY

Independent Variable

Music therapy

Dependent Variable

Level of pain perception and anxiety during the active phase of first stage of labour.

RESEARCH SETTING

The study was conducted in labour ward at Government Rajaji Hospital, Madurai which is a 2260 bedded multi specialty hospital with 660 bedded for Obstetrics and Gynecology.

The census of deliveries in the year 2011 was 40 - 50 deliveries per day, 1500 deliveries per month and 18,000 deliveries per year.

The two labour rooms were well equipped with 15 delivery tables, cardio tocography, partogram, ultrasonography, Doppler, infusion pump and emergency trolley.

POPULATION

All primi gravida mothers admitted in the above mentioned hospital for vaginal delivery is considered as population to assess the effectiveness of the music therapy during the active phase of first stage of labour.

SAMPLE

The sample of the study comprised of primi gravida mothers.

SAMPLE SIZE

The sample size comprised of 60 primi mothers admitted in the labour room. In that 30 mothers were allotted for experimental group and 30 mothers were allotted for control group.

SAMPLING TECHNIQUE

The investigator adopted simple random by lottery method to select the samples.

CRITERIA FOR SAMPLE SELECTION

All primi gravida mothers who had fulfilled the following criteria

Inclusion Criteria

1. Primigravida mothers admitted for normal vaginal delivery.
2. Primi gravida mothers willing to participate in this study.
3. Primigravida mothers in active phase of labour.
4. Primi gravida mothers undergoing vaginal delivery.

Exclusion Criteria

1. Primi gravida mothers with hearing defect.

2. High risk primi gravida mothers.

METHOD OF DEVELOPING THE TOOL

The tool was developed after an extensive review of literature, internet search and experts opinion. It helped the investigator to select most suitable pain assessment modified combined numerical categorical scale and stated trait anxiety scale.

DESCRIPTION OF THE TOOL

A tool was developed on the following aspects.

Section - A

It consists of demographic variables of the primi gravida mothers such as age, education, area of residence, type of family, support person, personality and gestational age.

Section - B

Modified combined numerical categorical pain intensity scale, which is a modified pain scale selected for the assessment of the labour pain. The scale is grouped into five categories.

0	-	No pain
1 - 3	-	Mild pain
4 - 6	-	Moderate pain
7 - 9	-	Severe pain
10	-	Excruciating pain

Section – C Anxiety scale

The anxiety level was assessed by spiel berg anxiety scale. The scale was contained 25 statements indicating mother state of anxiety. There is no right or wrong answer. Circle the appropriate number to the right of the statement to indicate how mother feel the time of labour.

Mild anxiety	-	0 – 48
Moderate anxiety	-	49 – 68
Severe anxiety	-	68 - 100

VALIDITY OF THE TOOL

The tool was given to experts, two in the field of nursing, one expert in the field of obstetrics and one expert in the field of music therapy. All comments and suggestions given by the experts were duly considered and corrections were made.

RELIABILITY OF THE TOOL

Validity of the tool was assessed using content validity. Content validity was determined by experts from Nursing and Medical. They suggested certain modifications in tool. After the modifications they agreed this tool for assessing the effectiveness of music therapy in reduction of pain perception and anxiety level in first stage of labour among primigravida mothers.

After pilot study reliability of the tool was assessed by using split half method and interrater method. Correlation coefficient is 0.82 and 0.86. This coefficient is very high and it is good tool for assessing the effectiveness of music therapy in reduction of pain perception and anxiety level in first stage of labour among primigravida mothers.

ETHICAL CONSIDERATIONS

i) The study was conducted after the approval of Dissertation Committee on 19.06.2011 and Hospital authority. Formal permission was obtained from the Medical Director and Head of Department of Obstetrical & Gynecological, Government Rajaji Hospital, Madurai.

ii) The mothers were clearly explained about the study purpose and written consent was obtained. Assurance was given to the mothers that anonymity of each information would be maintained.

PILOT STUDY

The pilot study was conducted in the labour room of Government Rajaji Hospital, Madurai, from 10.07.2011 to 17.07.2011.

Formal consent was obtained from the Medical Director and Head of Department of Obstetrical & Gynecological, Government Rajaji Hospital, Madurai. The concerned duty doctors and the ward in charge nurses were also informed. Six primi mothers who fulfilled the inclusion criteria were selected by simple random by lottery method. A brief introduction about the self and study was given and data was collected from the primigravida mothers in the labour room.

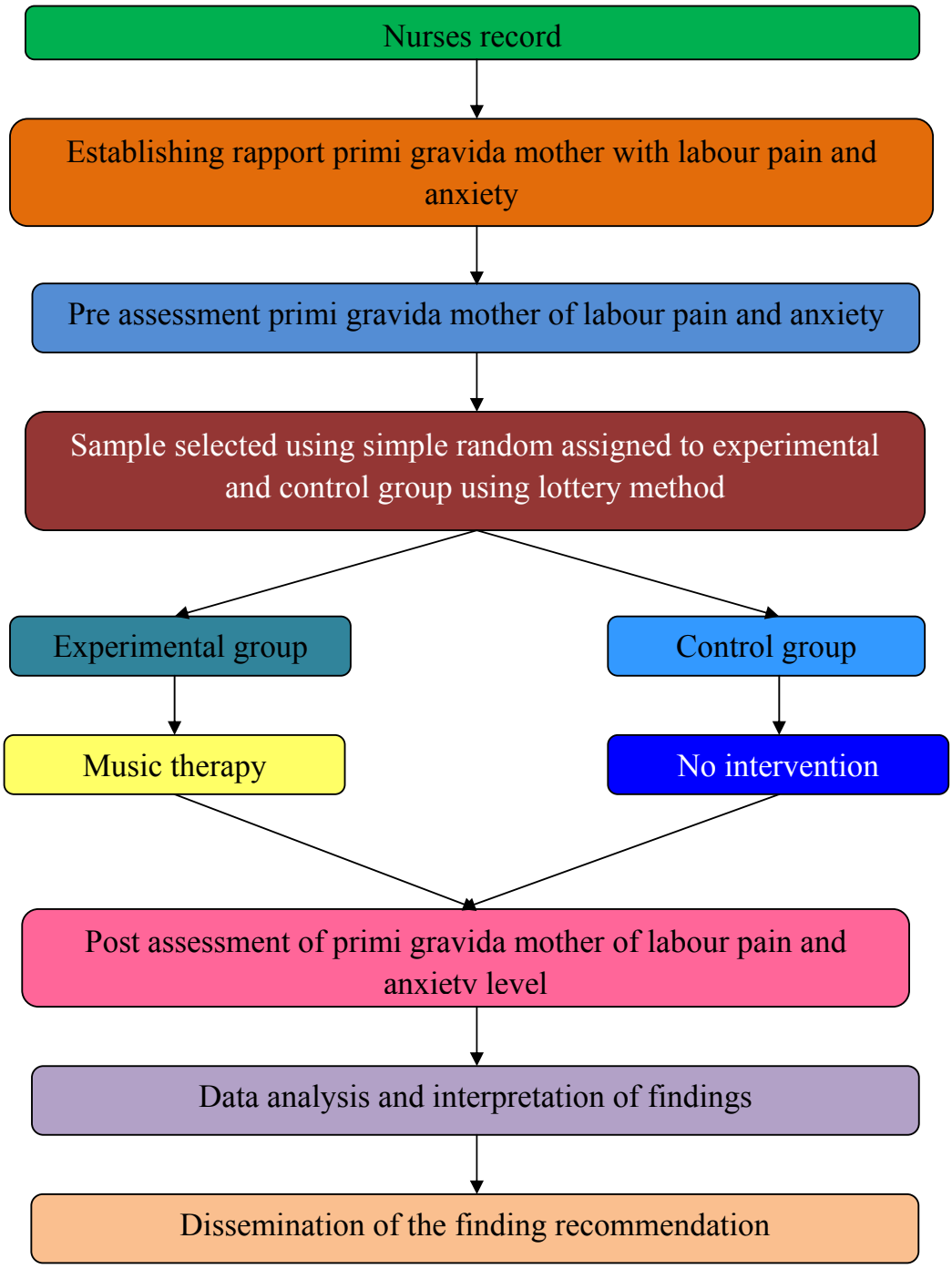
Consent was taken from samples, confidentially of the response was assured. The data related to the demographic variables were collected by the interview method and other information was obtained from the case sheet and the data was recorded immediately. The tool was found to be reliable and appropriate.

DATA COLLECTION PROCEDURE

A formal consent was obtained from the Medical Director and Head of Department of Obstetrical & Gynecological, Government Rajaji Hospital, Madurai and the investigator selected 60 samples using non probability purposive sampling technique.

On the selection of the study subject, a self introduction was given and the consent was obtained. The confidentiality was assured. A brief explanation about pain scale and anxiety scale, its purpose, and importance of music was given. The primi gravida mothers who are in labour pain with first stage of labour were taken into the study vaginal examination done. In the experimental group, the investigator assessed the level of labour pain by using modified Combined Numerical Categorical Scale. Before starting the intervention, pre assessment level of pain perception and anxiety was assessed. The music was given by investigator for 20 minutes again the same step is repeated in a 10 minutes interval. Then the level of labour pain and anxiety level was assessed by using the same scale. The anxiety level was assessed by stated trait anxiety scale. The scale was contained 25 statements indicating mother state of anxiety. There is no right or wrong answer. Circle the appropriate number to the right of the statement to indicate how mother feel the time of labour. But in the control group, pre and post test was assessed without administering the music.

FIG 2. SCHEMATIC REPRESENTATION OF THE STUDY



DATA ANALYSIS PROCEDURE

Demographic variables were computed by using descriptive statistics. Pain scale was analyzed by using inferential statistics to assess the effectiveness of music therapy during the first stage of labour.

Descriptive Statistics

1) Frequency and percentage distribution was used to analyze the demographic and obstetric data of the primi gravida mothers in experimental and control group.

2) Mean and standard deviation was used to compute the pre and post assessment level of pain perception and anxiety level among primi gravida mothers in experimental and control group.

Inferential Statistics

1. Paired‘t’ test is used to assess the effectiveness of music therapy on labour.
2. Chi-square test is used to associate the post assessment level of pain perception and anxiety level in the experimental and control group with demographic variables.
3. Demographic variables in categories were given in frequencies with their percentages.
4. Pain, anxiety score were given in mean and standard deviation.
5. Pretest and posttest differences were calculated using paired t-test.
6. Difference between experiment and control group was analyzed using independent t-test.
7. Association between demographic variables and knowledge score were analyzed using Pearson chi-square test/Yates corrected chi square test.
8. Differences between pretest and posttest score was calculated using and mean difference with 95% CI and proportion with 95% CI
9. Simple bar diagram, multiple bar diagram, percentage bar diagram and Pie diagram were used to represent the data.
10. $P<0.05$ was considered statistically significant. All statistical test are two tailed test.

CHAPTER – IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with the analysis and interpretation of data, collected from 60 primi gravida mothers in Government Rajaji Hospital, Madurai to assess the effectiveness of music therapy on the level of pain and anxiety among primi gravida mothers.

The data findings have been analyzed and tabulated in accordance to the plan for the data analysis and are interpreted under the following headings:

Section A:

Distribution of demographic variables of experimental and control group.

Section B:

i. Assess the pretest level of pain and anxiety in experimental and control group.
ii. Assess the effectiveness of music therapy level of pain and anxiety in experimental group

Section C:

i. Assessment of post test level of pain and anxiety in experimental and control group.
ii. Comparison of post test level of pain and anxiety in experimental and control group.

Section D:

i. Association between post test level of pain and anxiety in experimental and control group.
ii. Association between post test level of anxiety and demographic variable in experimental group.

SECTION – A DISTRIBUTION OF DEMOGRAPHIC VARIABLES OF EXPERIMENTAL AND CONTROL GROUP

TABLE – I

Frequency and percentage distribution of demographic variables of primi gravida mothers in experimental and control group.

DEMOGRAPHIC VARIABLE		Group			
		Experiment		Control	
		n	%	n	%
Age	19 -22 yrs	19	63.3%	15	50.0%
	23 -26 yrs	10	33.3%	13	43.3%
	27 -30 yrs	1	3.3%	2	6.7%
Education status	No formal education	4	13.3%	5	16.7%
	Primary education	14	46.7%	17	56.7%
	Higher Secondary	12	40.0%	8	26.7%
Residence	Urban	19	63.3%	18	60.0%
	Suburban	6	26.7%	7	23.3%
	Rural	5	16.7%	5	16.7%
Type of family	Joint family	11	36.7%	8	26.7%
	Nuclear family	19	63.3%	22	73.3%
Life style	Sedentary	28	93.3%	28	93.3%
	Heavy	2	6.7%	2	6.7%
Religion	Hindu	25	83.3%	27	90.0%
	Muslim	3	10.0%	1	3.3%
	Christian	2	6.7%	2	6.7%
Occupation	Home maker	27	90.0%	28	93.3%
	Business	3	10.0%	2	6.7%
Income	>Rs. 5000	12	40.0%	11	36.7%
	Rs. 4001 - 5000	18	60.0%	19	63.3%
Support person	Mother	26	86.7%	26	86.7%
	Mother in law	4	13.3%	4	13.3%
Type of Personality	Introvert	20	66.7%	17	56.7%
	Extravert	10	33.3%	13	43.3%

Table 1 shows that 19 (63.3%) of mother in the experimental group, 15 (50.0%) of primi gravida mothers in the control group were in the age of 19-22 years and 10(33.3%) of primi gravida mothers in the experimental group, 13(43.3%) of primi gravida mothers in control group, and 1(3.3%) of primi gravida mothers in experimental group, 2 (6.7%) of primi gravida mothers in the control group.

According to the educational status of primi gravida mothers in the experimental group, 14 (46.7%) had their education upto primary level, 17 (56.7%) had their education upto primary level in control group, 12 (40.0%) had their education upto higher secondary level in experimental group, 8(26.7%) had their education upto higher secondary level in control group, 4 (13.3%) had their education up to no formal education level in experimental group, 5 (16.7%) had their education upto no formal education level in control group.

Regarding area of residence, 19(63.3%) of mothers in the experimental group, 18(60.0%) of primi gravida mothers in control group were resides in urban area. 6 (26.7%) of mothers in experimental group, 7 (23.3%) of mothers in the control group were resides in suburban area. 5 (16.7%) of mothers in the experimental group, 5 (16.7%) of mothers in control group were resides in rural area.

Regarding type of family, 19 (36.7%) of mothers in experimental group, 22 (73.3%) of mothers in control group were nuclear family. 11 (36.7%) of mothers in the experimental group, 8 (26.7%) of mothers in the control group were joint family.

Regarding life style, 28 (93.3%) of mothers in experimental and control group were sedentary. 2 (6.7%) of mothers in experimental group and control group were sedentary.

Regarding religion, 25 (83.3%) of mothers in experimental group, 27 (90.0%) of mothers control group were belongs to Hindu. 3 (10.0%) of mothers in experimental group, 1 (3.3%) of mothers in control group were belongs to Muslim. 2 (6.7%) of mothers in experimental group and control group were belongs to Christian.

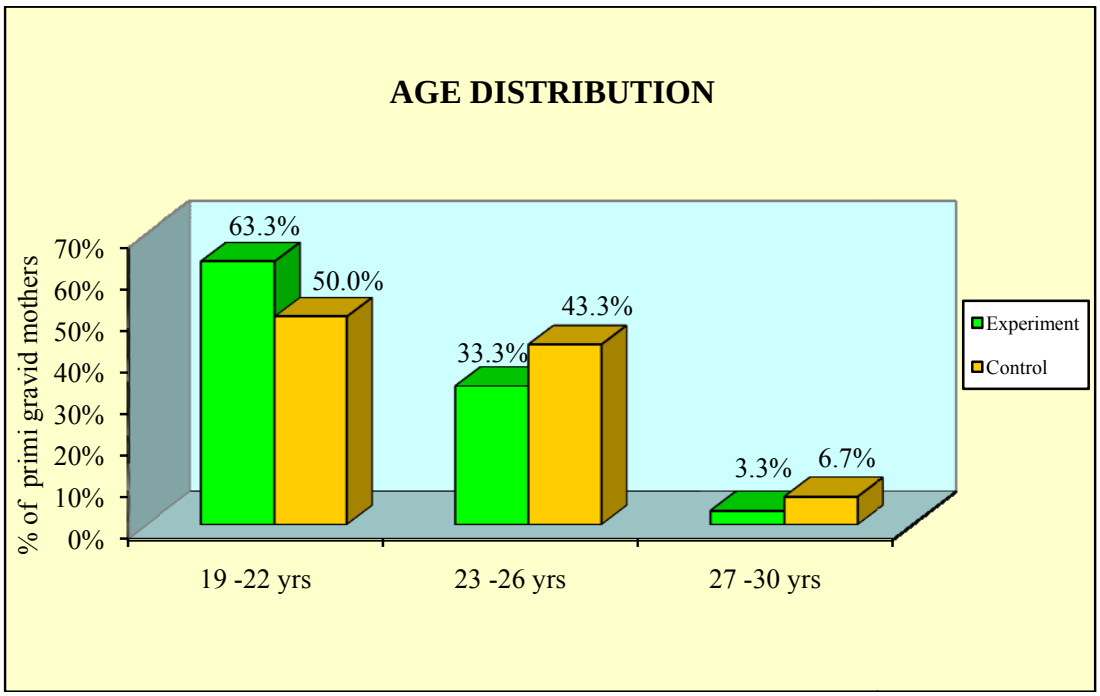
Regarding occupation, 27 (90.0%) of mothers in experimental group, 28 (93.3%) of mothers in control group were belongs to home maker. 3 (10.0%) of mothers in experimental group, 2 (6.7%) of mothers in control group were doing to business.

Regarding income, 12 (40.0%) of mothers in experimental group, 11 (36.7%) of mothers in control group were earning to more than Rs.5000 per month. 18 (60.0%) of mothers in experimental group, (19 (63.3%) of mothers in control group were earning Rs.4001 – 5000 per month.

Regarding support person, 26 (86.7%) of mothers in experimental group, 26 (86.7%) of mothers in control group were supported by mother. 4 (13.3%) of mothers in experimental group and control group were supported by mother in law.

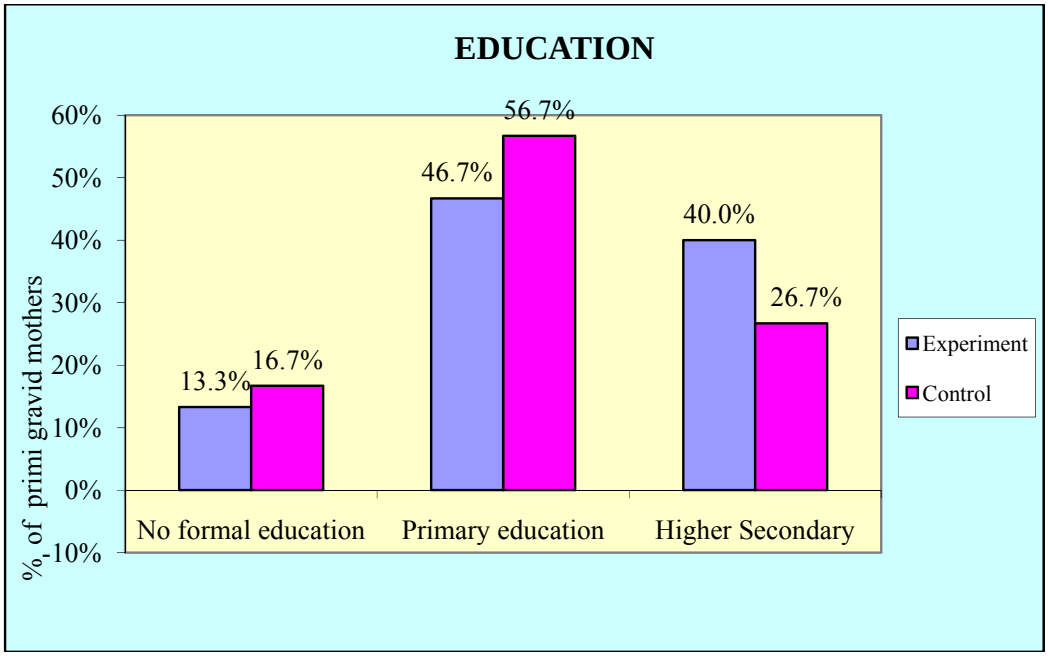
Regarding type of personality, 20 (66.7%) of mothers in experimental group, 17 (56.7%) of mothers in control group were introvert. 10 (33.3%) of mothers in experimental group, 13 (43.3%) of mothers in control group were extravert.

FIG. 3. DISTRIBUTION OF PRIMI GRAVID MOTHERS ACCORDING TO THEIR GESTATIONAL AGE



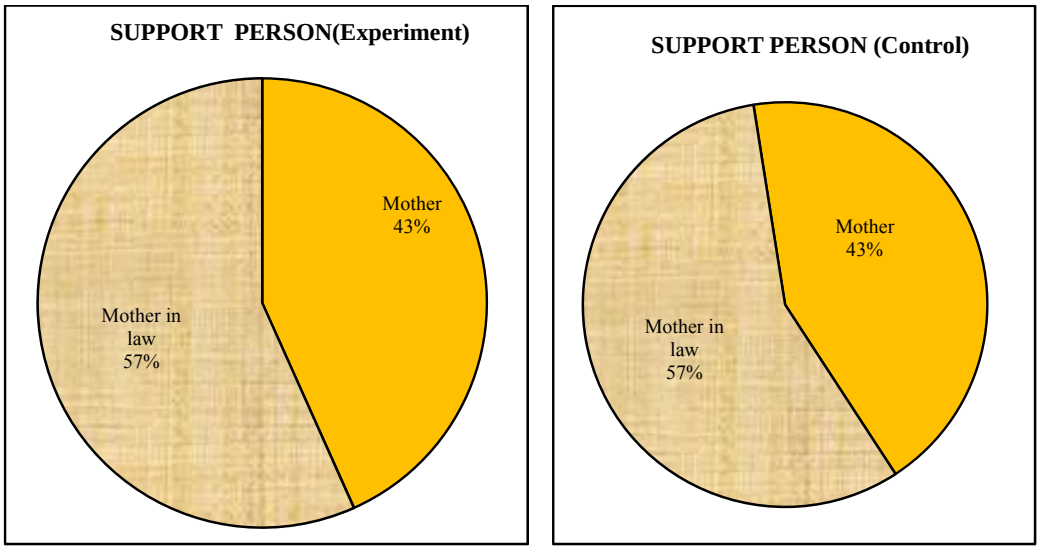
The above figure shows that majority of mother (63.3%) in experimental group belongs to 19-22years and 43.3% in control group belongs to 23-26 years.

FIG 4. DISTRIBUTION OF PRIMI GRAVIDA MOTHERS ACCORDING TO THEIR GESTATIONAL EDUCATION



The above figure shows that majority of mothers 56.7% in control group and 46.7% in experimental group have completed primary education.

FIG 5. DISTRIBUTION OF PRIMI GRAVIDA MOTHERS ACCORDING TO THEIR SUPPORT PERSON



The above figure shows that the experimental group support to mother in law 57% and mother in 43% in support person.

TABLE – 2

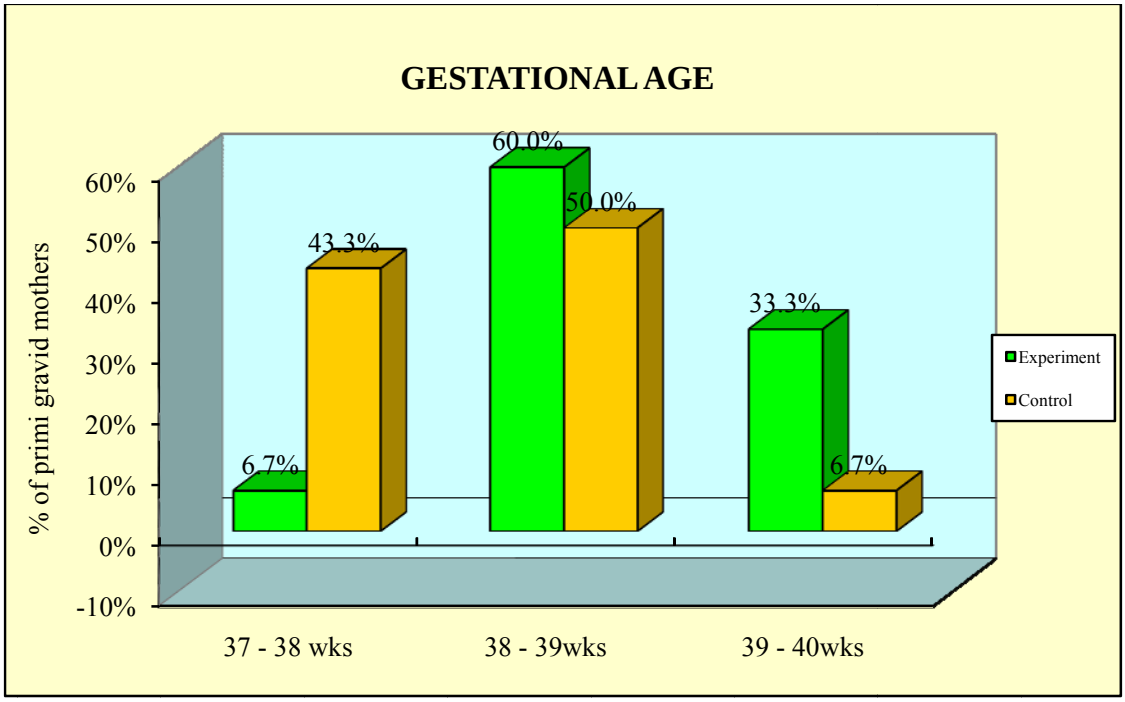
OBSTETRIC VARIABLES

OBSTETRIC VARIABLES		Group			
		Experiment		Control	
		n	%	n	%
Gestational age	37 - 38 wks	2	6.7%	13	43.3%
	38 - 39wks	18	60.0%	15	50.0%
	39 - 40wks	10	33.3%	2	6.7%
Cervical Dilatation	4 - 6cms	20	66.7%	22	73.3%
	6 - 8cms	10	33.3%	8	26.7%

According to the gestational age, 18 (60.0%) of mothers in experimental group, 15 (50.0%) of mothers in control group were between the gestational age of 38- 39wks and only 10 (33.3%) of mothers in experimental group, 2 (6.7%) of mothers in control group were between the gestational age of 39 – 40wks and 2 (6.7%) of mothers in experimental group, 13 (43.3%) of mothers in control group were between the gestational age of 37-38wks.

According to cervical dilation, 20 (6.7%) of mothers in experimental group, 22 (73.3%) of mothers in control group were 4-6cms. 10 (33.3%) of mothers in experimental group, 8 (26.7%) of mothers in control group were 6-8cms.

FIG 6. DISTRIBUTION OF PRIMI GRAVIDA MOTHERS ACCORDING TO THEIR GESTATIONAL AGE



The above figure shows that majority of mother 60.0% in experimental group and 50.0% in control group.

SECTION – B

TABLE -3: ASSESSMENT OF PRETEST LEVEL OF PAIN AND ANXIETY IN EXPERIMENTAL AND CONTROL GROUP.

N = 60 (30 +30)

	No. of patients	**Min- max pain score**	**Mean±SD**	**% of pain**
Experiment	30	0 -10	8.23 ± 1.19	82.3%
Control	30	0 -10	8.07 ± 1.11	80.7%

The above table shows the mean pain score among primi gravida mothers before music therapy. 8.23 pain score out of 10 in experimental group, 8.07 pain score and out of 10 in control group. Pain score is 82.3 in experiment mothers and it is 80.7% in control group.

TABLE – 4 PRETEST LEVELS OF PAIN SCORE IN EXPERIMENTAL AND CONTROL GROUP.

LEVEL OF PAIN	EXPERIMENT		CONTROL	
	N	%	N	%
Mild	0	0.0%	0	0.0%
Moderate	0	0.0%	0	0.0%
Severe	25	83.3%	24	80.0%
Excruciating pain	5	16.7%	6	20.0%
Total	30	100.0%	30	100.0%

Table 4 shows the pretest level of pain among primi gravida mothers. Before music therapy, in experimental group 25 (83.3%) of mothers are having severe pain, 5 (16.7%) of them having excruciating pain. Before music therapy in control group 24 (80.0%) of mothers are having severe pain, 6 (20.0%) of them having excruciating pain.

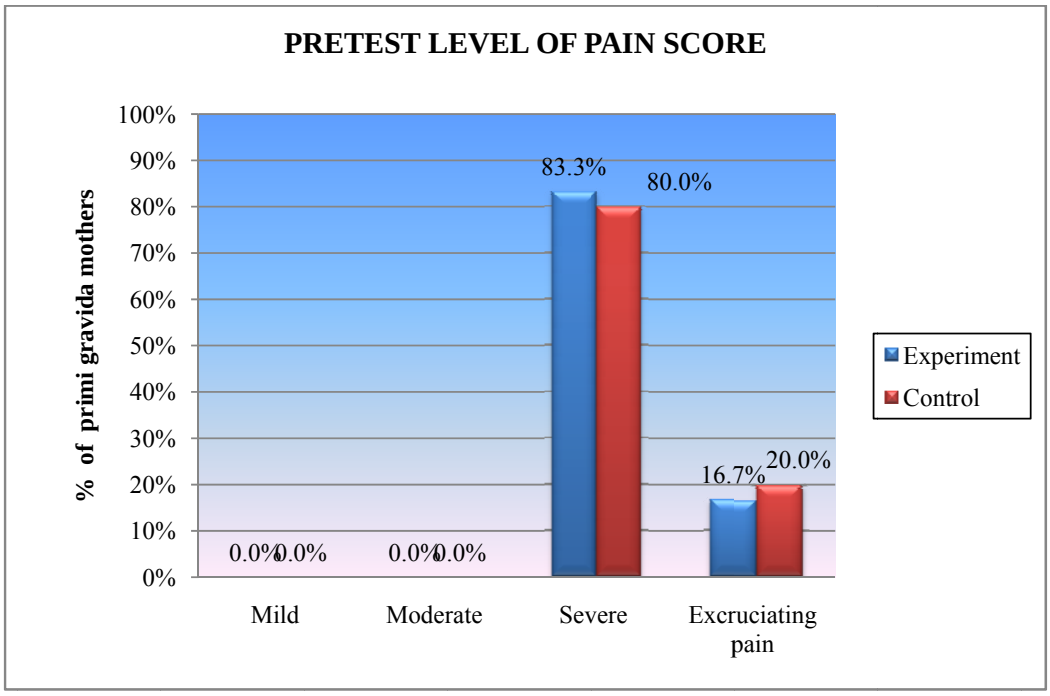
TABLE -5

PRETEST ANXIETY SCORE

GROUP	No. of questions	Min- max anxiety score	Mean±SD	% of pain
Experiment	25	25 -100	85.23 ± 4.69	85.2%
Control	25	25 -100	84.53 ± 3.88	84.5%

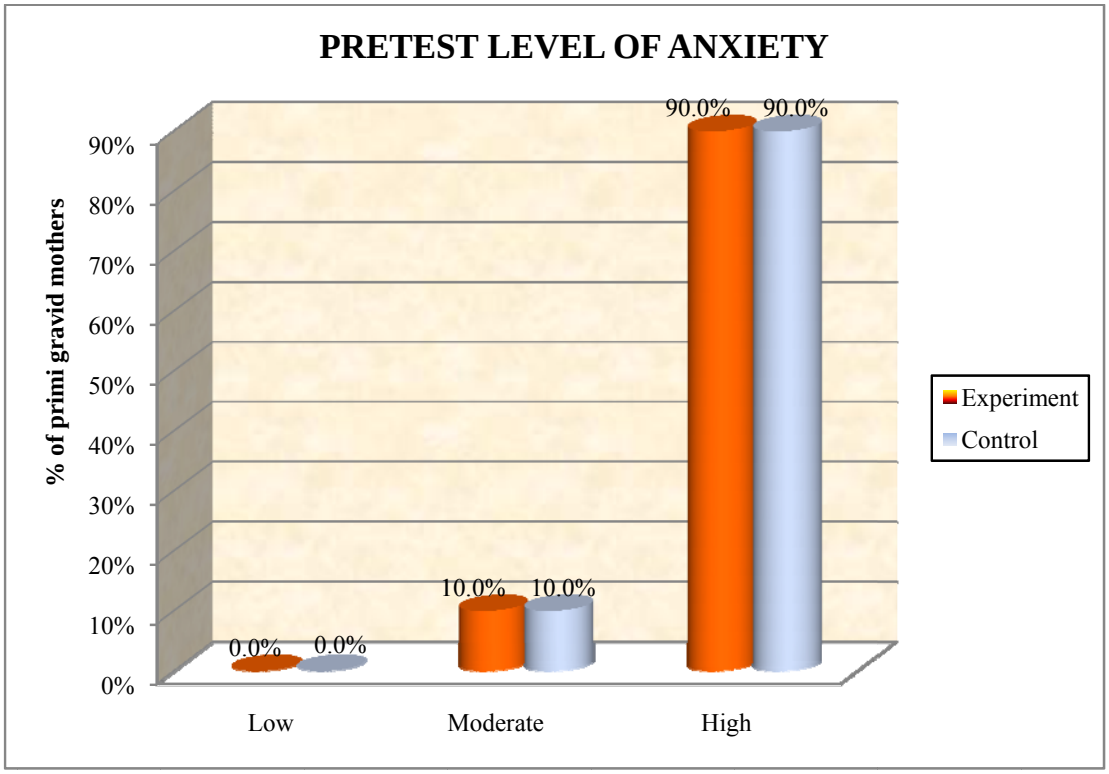
Table 5 shows the mean anxiety score among primi gravida mothers before music therapy. 85.2 anxiety score out of 100 in experimental group, 84.5 anxiety score out of 100 in control group. Anxiety score is 85.2% in experiment and it is 84.2% in control group.

FIG 7. DISTRIBUTION OF PRIMI GRAVIDA MOTHERS ACCORDING TO THEIR PRE TEST LEVEL OF PAIN SCORE



The above figure showed that majority of mother 83.3% of experimental group and 80.0% of control group.

FIG 8. DISTRIBUTION OF PRIMI GRAVIDA MOTHERS ACCORDING TO THEIR PRE TEST LEVEL OF ANXIETY



The above figure showed that majority of mothers anxiety was 90.0% of experimental and control group.

TABLE – 6

PRETEST LEVEL OF ANXIETY SCORE

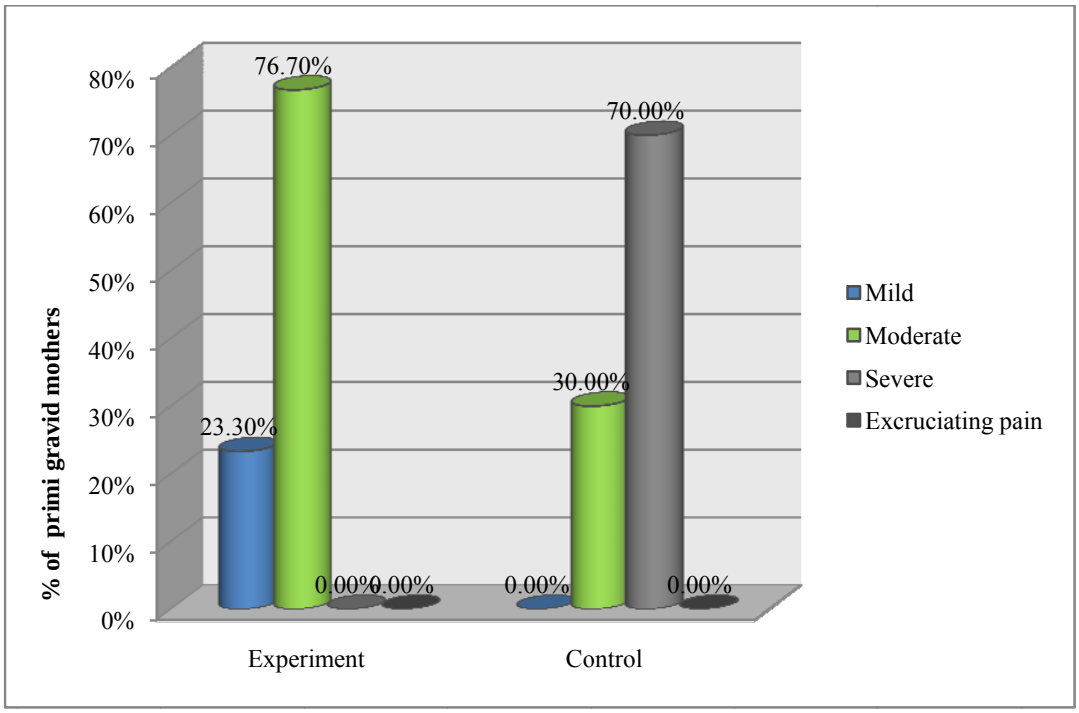
Level of anxiety	Experiment		Control	
	n	%	n	%
Low	0	0.0%	0	0.0%
Moderate	3	10.0%	3	10.0%
High	27	90.0%	27	90.0%
Total	30	100.0%	30	100.0%

The above table showed the pretest level of anxiety among primi para mothers.

Before music therapy, in experiment group 10% of the mothers are having moderate anxiety, 90.0% of them having high anxiety.

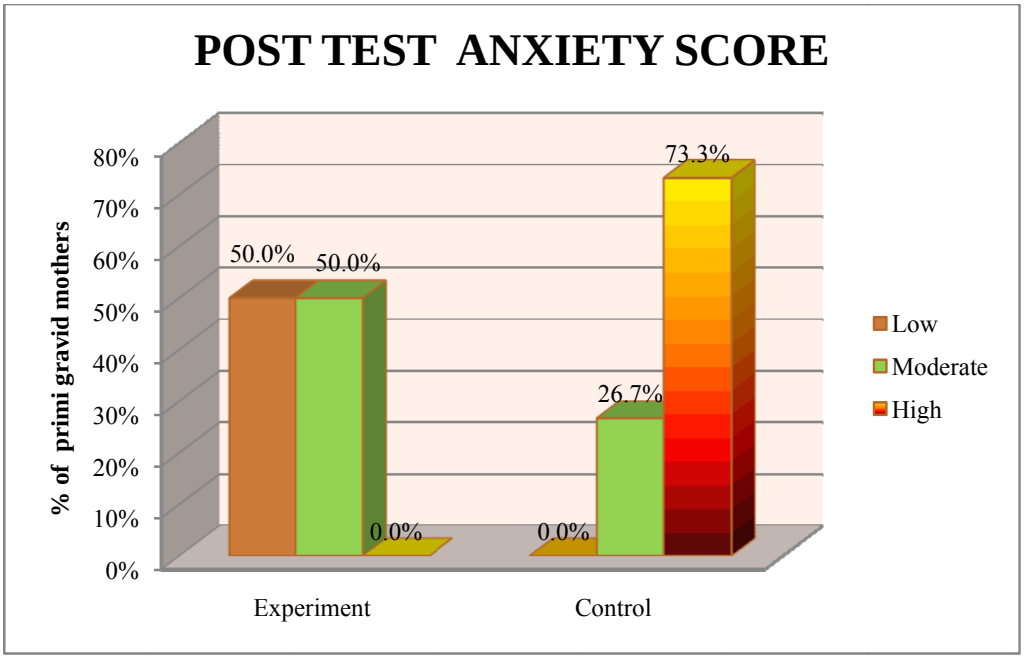
Before music therapy, in control group 10.0% of the mothers are having moderate anxiety, 90.0% of them having high anxiety.

FIG 9. COMPARISON OF POST TEST LEVEL OF PAIN SCORE



The figure shows in experimental group 76.70% having high level of pain score in control group 70% level of pain score.

FIG 10. COMPARISON OF POST TEST LEVEL OF ANXIETY SCORE



In the figure shows in experimental group mother having 50% moderate level of anxiety score in control group 73.3% of mother having high level of anxiety score.

Table 7

COMPARISON OF EXPERIMENT AND CONTROL GROUP PAIN SCORE

	Experiment	**Control**	**Student's independent t-test**
Pretest	8.23 ± 1.19	8.07 ± 1.12	t=0.55 P=0.57 DF= 58 not significant
Posttest	4.03± 1.07	6.90± 0.60	**t=11.98 P=0.001*** DF= 58 significant**
Student's paired t-test	**t=12.86 P=0.001*** DF= 29 significant**	**t=3.64 P=0.001*** DF= 29 significant**	

* Significant at P≤0.05 ** highly significant at P≤0.01 *** very high significant at P≤0.001

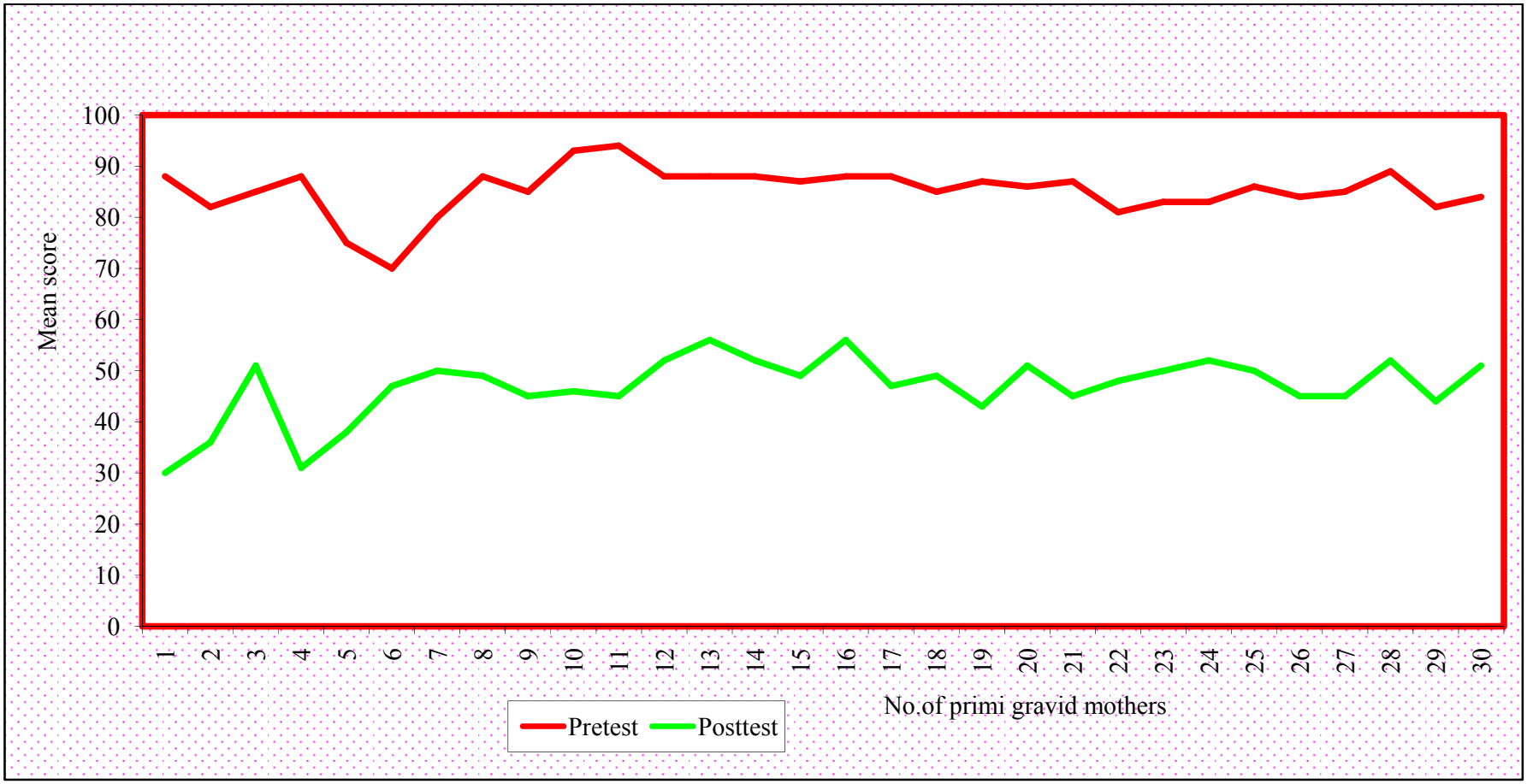
In pretest, experiment mothers are having 8.23 pain score and control group mothers are having 8.07 pain score. The difference is 0.167 pain score. It is small difference. This difference is statistically not significant. Statistical significance was calculated by using student's independent 't'test.

In posttest, experiment mothers are having 4.03 pain score and control group mothers are having 6.90 pain score. The difference is 2.87 pain score. Difference is large. This difference is statistically significant. Statistical significance was calculated by using student's independent 't'test.

In experiment group, mothers are reduced their pain score from 8.23 to 4.03 after the administration of music therapy. Due to music therapy they are able to reduce 4.20 pain score from base line pain. This reduction is statistically significant. Statistical significance was calculated by using student's paired 't'test.

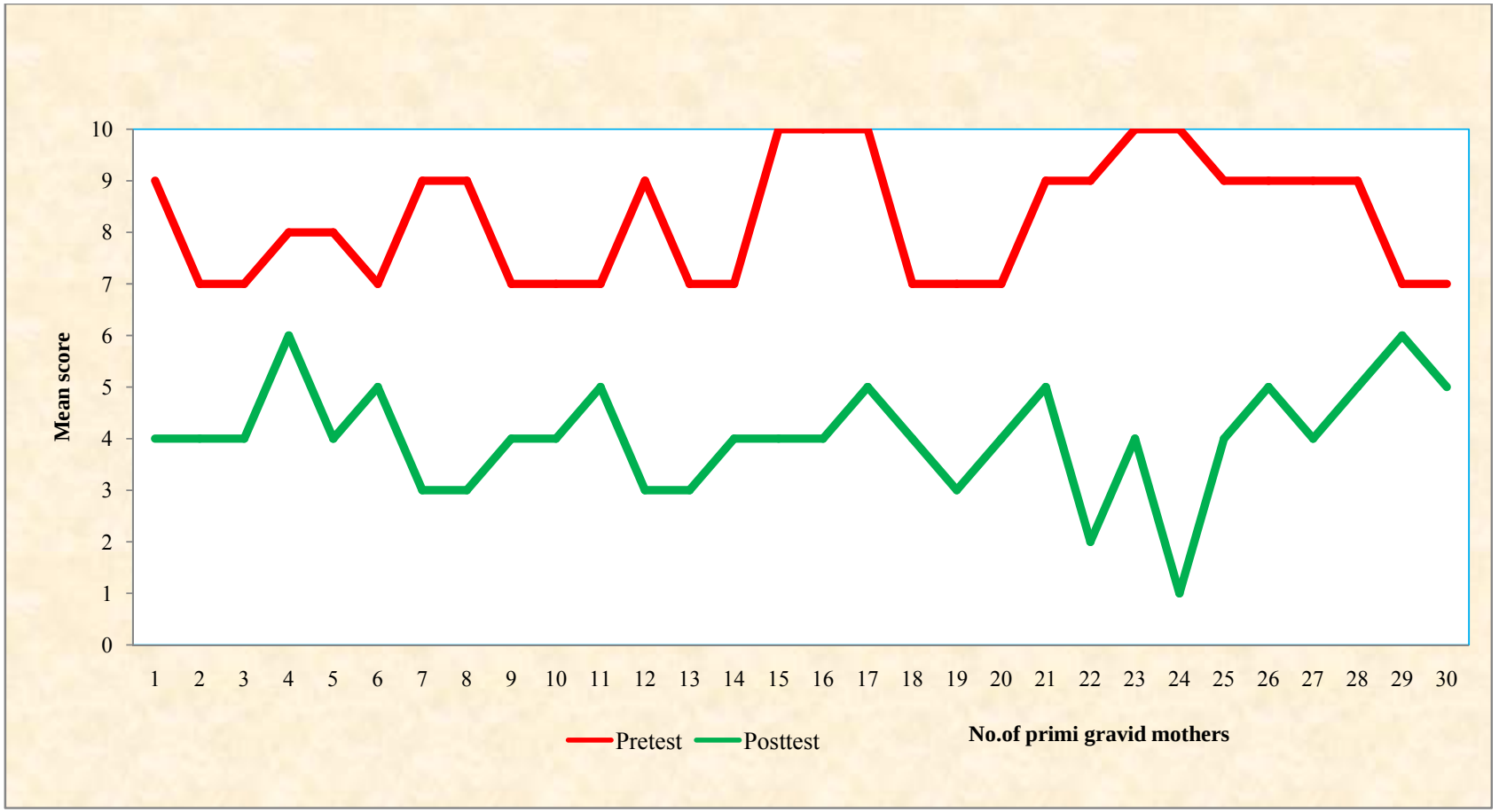
In control group, mothers are reduced their pain score from 8.07 to 6.90 after the posttest. Due to routine care they are able to reduce 1.17 pain score from base line pain. This reduction is statistically significant. Statistical significance was calculated by using student's paired 't'test.

FIG 11. COMPARISON OF PRETEST AND POSTTEST ANXIETY SCORE (EXPERIMENT)



The line graphs shows that the comparison of pre test and post test mean score of anxiety level in experimental group s. It represents the post test mean score is less when comparing pre test mean value.

FIG 12. COMPARISON OF PRETEST AND POSTTEST PAIN SCORE (EXPERIMENT)



The line graphs shows that the comparison of pre test and post test pain score, it represents the post test pain score is less when comparing pre test Pain value.

TABLE 8: COMPARISON OF EXPERIMENT AND CONTROL PRETEST LEVEL OF PAIN

LEVEL OF PAIN	Experiment		Control		Chi-square test /Yates corrected chi square test
	No. of mothers	%	No. of mothers	%	
Mild	0	0.0%	0	0.0%	$\chi 2=0.04$ P=0.94 DF=1 not significant
Moderate	0	0.0%	0	0.0%	
Severe	25	83.3%	24	80.0%	
Excruciating pain	5	16.7%	6	20.0%	

* Significant at P≤0.05 ** highly significant at P≤0.01 *** very high significant at P≤0.001

Table no.8 shows the pretest level of pain among primi para mothers.

Before music therapy, in experiment group 83.3% of mothers are having severe pain, 16.7% of them having excruciating pain.

Before music therapy, in control group 80.0% of mothers are having severe pain, 20.0% of them having excruciating pain.

There is no statistically significant difference. Pearson Chi-square test /Yates corrected chi square test was used to test statistical significance.

TABLE 9 COMPARISON OF EXPERIMENT AND CONTROL POSTTEST LEVEL OF PAIN

LEVELF O PAIN	Experiment		Control		Chi-square test /Yates corrected chi square test
	No.of mothers	%	No.of mothers	%	
Mild	7	23.3%	0	0.0%	$\chi 2$=34.12 P=0.001*** DF=2 significant
Moderate	23	76.7%	9	30.0%	
Severe	0	0.0%	21	70.0%	
Excruciating pain	0	0.0%	0	0.0%	

* Significant at P≤0.05 ** highly significant at P≤0.01 *** very high significant at P≤0.001

Table no.9 shows the posttest level of pain among primi para mothers.

After music therapy, in experiment group 23.3% of mothers are having mild pain, 76.7% of them having moderate pain.

After routine treatment, in control group 70.0% of mothers are having severe pain, 30.0% of them having moderate pain.

There is a statistically significant difference. Pearson Chi-square test /Yates corrected chi square test was used to test statistical significance.

TABLE 10 COMPARISONS OF EXPERIMENT AND CONTROL GROUP ANXIETY SCORE

	Experiment	**Control**	**Student's independent t-test**
Pretest	85.23 ± 4.69	84.53 ± 3.88	t=0.62 P=0.53 DF= 58 not significant
Posttest	46.83± 6.27	73.80± 4.80	t=18.59 P=0.001*** DF= 58 significant
Student's paired t-test	t=28.13 P=0.001*** DF= 29 significant	t=13.39 P=0.001*** DF= 29 significant	

* Significant at P≤0.05 ** highly significant at P≤0.01 *** very high significant at P≤0.001

In pretest, experiment mothers are having 85.23 anxiety score and control group mothers are having 84.53 anxiety score. The difference is 0.70 anxiety score. It is small difference. This difference is statistically not significant. Statistical significance was calculated by using student's independent 't'test.

In posttest, experiment mothers are having 46.83 anxiety score and control group mothers are having 73.80 anxiety score. The difference is 26.97 anxiety score. Difference is large. This difference is statistically significant. Statistical significance was calculated by using student's independent 't'test.

In experiment group, mothers are reduced their anxiety score from 85.23 to 46.83 after the administration of music therapy. Due to music therapy they are able to reduce 38.40 anxiety score from base line anxiety. This reduction is statistically significant. Statistical significance was calculated by using student's paired 't'test.

In control group, mothers are reduced their anxiety score from 84.53 to 73.80 after the posttest. Due to routine care they are able to reduce 10.73 anxiety score from base line anxiety. This reduction is statistically significant. Statistical significance was calculated by using student's paired 't'test.

Table 11

COMPARISON OF EXPERIMENT AND CONTROL PRETEST LEVEL OF ANXIETY

Level of anxiety	Experiment		Control		Chi-square test/Yates corrected chi square test
	No.of mothers	%	No.of mothers	%	
Low	0	0.0%	0	0.0%	$\chi 2$=0.00 P=1.00 DF=1 not significant
Moderate	3	10.0%	3	10.0%	
High	27	90.0%	27	90.0%	

* Significant at P≤0.05 ** highly significant at P≤0.01 *** very high significant at P≤0.001

Table no.11 shows the pretest level of anxiety among primi para mothers.

Before music therapy, in experiment group 10.0% of mothers are having moderate anxiety, 90.0% of them having high anxiety.

Before music therapy, in control group 10.0% of mothers are having moderate anxiety, 90.0% of them having high anxiety.

There is no statistically significant difference. Pearson Chi-square test /Yates corrected chi square test was used to test statistical significance

Table 12

COMPARISON OF EXPERIMENT AND CONTROL POSTTEST LEVEL OF ANXIETY

Level of anxiety	Experiment		Control		Chi-square test */Yates corrected chi square test*
	No.of mothers	%	No.of mothers	%	
Low	15	50.0%	0	0.0%	$\chi 2$=39.13 P=0.001*** DF=2 significant
Moderate	15	50.0%	8	26.7%	
High	0	0.0%	22	73.3%	

* Significant at P≤0.05 ** highly significant at P≤0.01 *** very high significant at P≤0.001

Table no.12 shows the posttest level of anxiety among primi para mothers.

After music therapy, in experiment group 50.0% of mothers are having low anxiety, 50.0% of them having moderate anxiety.

After routine treatment, in control group 26.7% of mothers are having moderate anxiety, 73.3% of them having high anxiety.

There is a statistically significant difference. Pearson Chi-square test /Yates corrected chi square test was used to test statistical significance.

SECTION - B

Table 13: EFFECTIVENESS OF MUSIC THERAPY (Pain score)

		Max score	Mean score	Mean Difference in pain score with 95% Confidence interval	Percentage Difference in pain score with 95% Confidence interval
Experiment	Pre test	10	8.23	4.20(3.53 – 4.87)	42.0% (35.3% –48.7%)
	Post test	10	4.03		
Control	Pre test	10	8.07	1.17(0.74 – 1.60)	11.7% (7.4% –16.0%)
	Post test	10	6.90		

Table no 13 shows the effectiveness of music therapy between experiment and control group.

On an average, in experiment, mothers are reduced 42.0% of pain score whereas in control patients are reduced 11.7% pain score.

Differences between pretest and posttest score was calculated using and mean difference with 95% CI and proportion with 95% CI.

Table 14

EFFECTIVENESS OF MUSIC THERAPY (Anxiety score)

		Max score	**Mean score**	**Mean Difference in pain score with 95% Confidence interval**	**Percentage Difference in pain score with 95% Confidence interval**
Experiment	Pretest	100	85.23	38.40(35.61 – 41.19)	38.40%(35.61% – 41.19%)
	Posttest	100	46.83		
Control	Pretest	100	84.53	10.73(10.08 – 11.39)	10.73%(10.08%– 11.39%)
	Posttest	100	73.80		

Table no 14 shows the effectiveness of music therapy between experiment and control group.

In experiment, mothers are reduced 38.40% of anxiety score whereas in control mothers are reduced 10.73% anxiety score.

Differences between pretest and posttest score was calculated using and mean difference with 95% CI and proportion with 95% CI.

SECTION - C

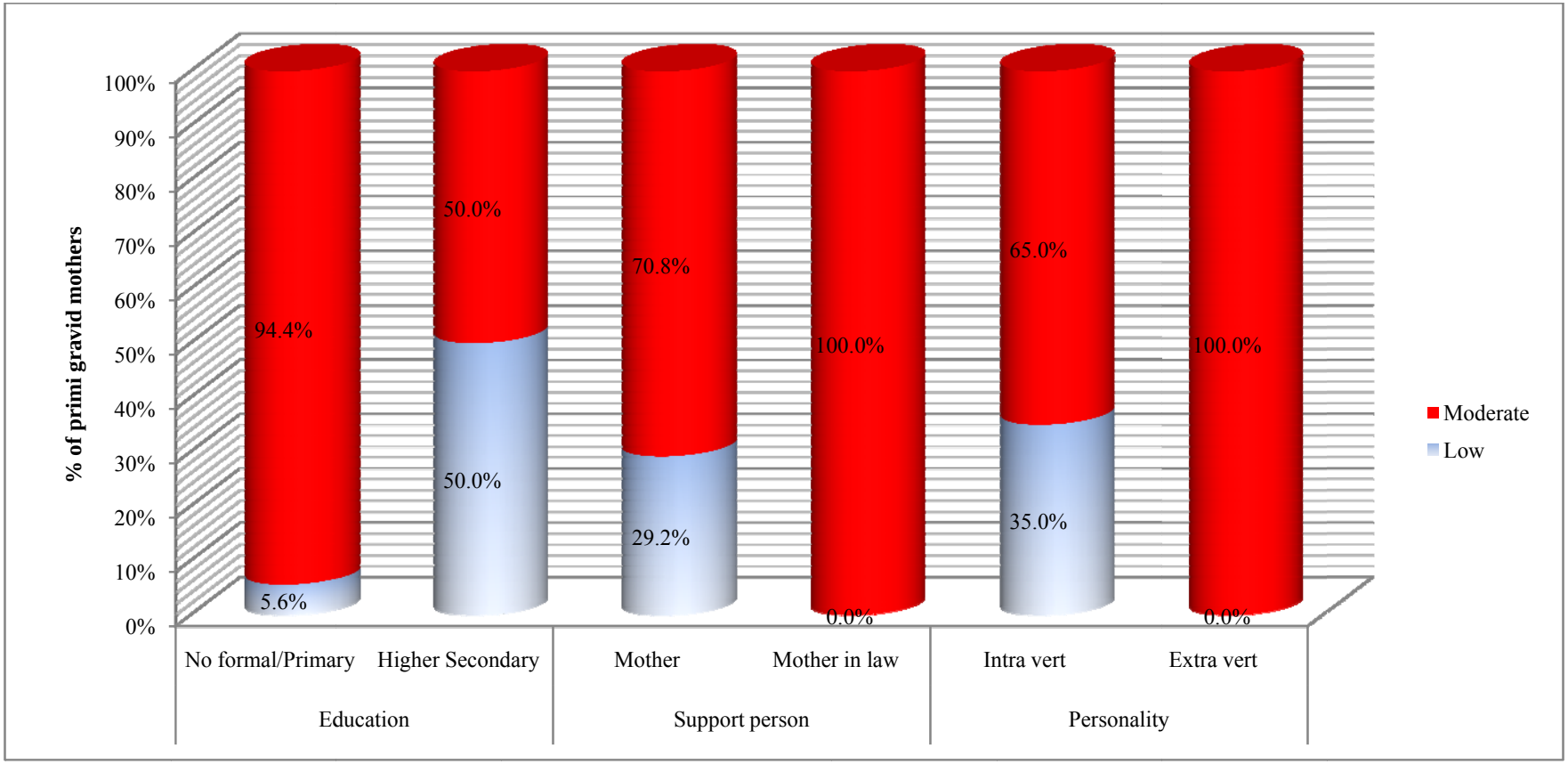
Table 15 ASSOCIATION BETWEEN POSTTEST LEVEL OF PAIN AND DEMOGRAPHIC VARIABLES (Experiment group)

		Posttest level of pain				Total	Pearson chi-square test/ Yates corrected chi-square test
		Mild		Moderate			
		n	%	n	%		
Age	19 -22 yrs	5	26.3%	14	73.7%	19	χ^2=0.25 P=0.61 DF=1 not significant
	23 -26 yrs	2	18.2%	9	81.8%	11	
Education status	No formal/Primary	1	5.6%	17	94.4%	18	**χ^2=7.95 P=0.01** DF=1 significant**
	Higher Secondary	6	50.0%	6	50.0%	12	
Residence	Urban/Suburban	7	28.0%	18	72.0%	25	χ^2=2.75 P=0.09 DF=1 not significant
	Rural	0	0.0%	5	100.0%	5	
Type of family	Joint family	2	18.2%	9	81.8%	11	χ^2=0.26 P=0.61 DF=1 not significant
	Nuclear family	5	26.3%	14	73.7%	19	
Life style	Sedentary	6	21.4%	22	78.6%	28	χ^2=0.85 P=0.35 DF=1 not significant
	Heavy	1	50.0%	1	50.0%	2	
Religion	Hindu	7	28.0%	18	72.0%	25	χ^2=1.82 P=0.18 DF=1 not significant
	Muslim/Christian	0	0.0%	5	100.0%	5	
Occupation	Home maker	6	22.2%	21	77.8%	27	χ^2=0.19 P=0.66 DF=1 not significant
	Business	1	33.3%	2	66.7%	3	
Income	>Rs. 5000	5	41.7%	7	58.3%	12	χ^2=3.75 P=0.06 DF=1 not significant
	Rs. 4001 - 5000	2	11.1%	16	88.9%	18	
Support person	Mother	7	29.2%	17	70.8%	24	**χ^2=3.84 P=0.05* DF=1 significant**
	Mother in law	0	0.0%	6	100.0%	6	
Type of Personality	Intra vert	7	35.0%	13	65.0%	20	**χ^2=6.89 P=0.01** DF=1 significant**
	Extra vert	0	0.0%	8	100.0%	10	
Gestational age	37 - 39 wks	5	25.0%	15	75.0%	20	χ^2=0.09 P=0.76 DF=1 not significant
	39 - 40wks	2	20.0%	8	80.0%	10	
Cervical Dilatation	4 - 6cms	3	15.0%	17	85.0%	20	χ^2=2.32 P=0.13 DF=1 not significant
	6 - 8cms	4	40.0%	6	60.0%	10	

* Significant at P≤0.05 ** highly significant at P≤0.01 *** very high significant at P≤0.001

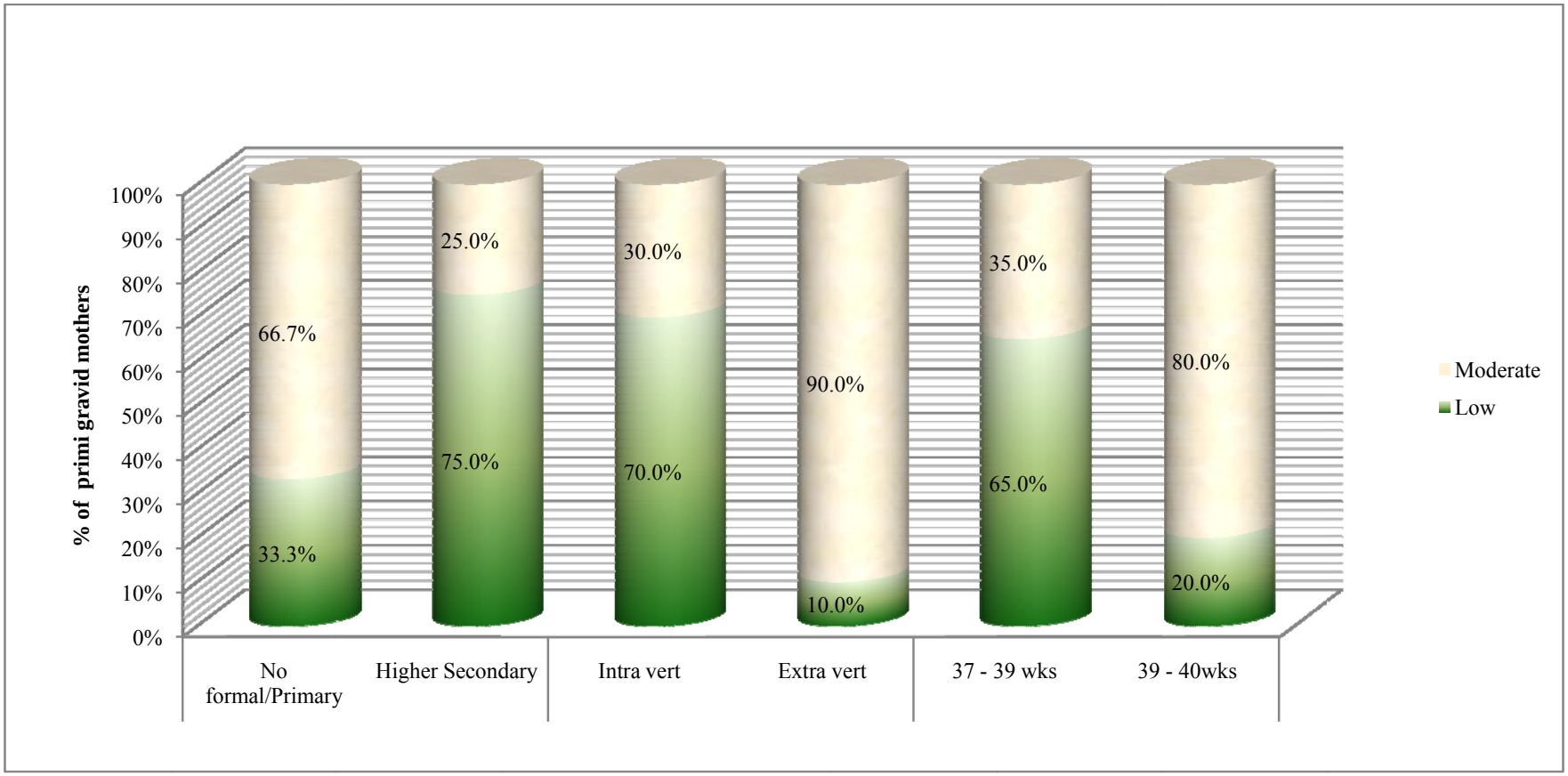
Table no 15 shows the association between demographic variables and their level of pain in experimental group. Education, support person and Type of personality are significantly associated with their posttest level of pain .Statistical significance was analyzed using Pearson chi-square test/ Yates corrected chi-square test.

FIG 13. ASSOCIATION BETWEEN POSTTEST LEVEL OF PAIN AND THEIR DEMOGRAPHIC VARIABLES



The bar diagram shows that the significant association was observed on pain level with educational status, personality and Gestational weeks of mothers in post test level.

FIG 14. ASSOCIATION BETWEEN POSTTEST LEVEL OF ANXIETY AND THEIR DEMOGRAPHIC VARIABLES



The bar diagram shows that the significant association was observed on anxiety level with educational status, personality and Gestational weeks of mothers in post test level.

SECTION - D

Table 16: ASSOCIATION BETWEEN POSTTEST LEVEL OF ANXIETY AND DEMOGRAPHIC VARIABLES (Experiment group)

		Posttest level of anxiety				Total	Pearson chi-square test/ Yates corrected chi-square test
		Low		Moderate			
		n	%	n	%		
Age	19 -22 yrs	10	52.6%	9	47.4%	19	$\chi2$=0.14 P=0.70
	23 -26 yrs	5	45.5%	6	54.5%	11	DF=1not significant
Education status	No formal/Primary	6	33.3%	12	66.7%	18	**$\chi2$=5.00 P=0.02***
	Higher Secondary	9	75.0%	3	25.0%	12	**DF=1 significant**
Residence	Urban/Suburban	12	48.0%	13	52.0%	25	$\chi2$=0.24 P=0.62
	Rural	3	60.0%	2	40.0%	5	DF=1 not significant
Type of family	Joint family	6	54.5%	5	45.5%	11	$\chi2$=0.14 P=0.70
	Nuclear family	9	47.4%	10	52.6%	19	DF=1 not significant
Life style	Sedentary	14	50.0%	14	50.0%	28	$\chi2$=0.0 P=1.00
	Heavy	1	50.0%	1	50.0%	2	DF=1 not significant
Religion	Hindu	11	44.0%	14	56.0%	25	$\chi2$=2.16 P=0.14
	Muslim/Christian	4	80.0%	1	20.0%	5	DF=1 not significant
Occupation	Home maker	13	48.1%	14	51.9%	27	$\chi2$=0.37 P=0.54
	Business	2	66.7%	1	33.3%	3	DF=1 not significant
Income	>Rs. 5000	6	50.0%	6	50.0%	12	$\chi2$=0.0 P=1.00
	Rs. 4001 - 5000	9	50.0%	9	50.0%	18	DF=1 not significant
Support person	Mother	13	54.2%	11	45.8%	24	$\chi2$=0.83 P=0.36
	Mother in law	2	33.3%	4	66.7%	6	DF=1 not significant
Type of Personality	Intra vert	14	70.0%	6	30.0%	20	**$\chi2$=9.60 P=0.01****
	Extra vert	1	10.0%	9	90.0%	10	**DF=1 significant**
Gestational age	37 - 39 wks	13	65.0%	7	35.0%	20	**$\chi2$=5.04 P=0.02**
	39 - 40wks	2	20.0%	8	80.0%	10	**DF=1 significant**
Cervical Dilatation	4 - 6cms	10	50.0%	10	50.0%	20	$\chi2$=0.0 P=1.00
	6 - 8cms	5	50.0%	5	50.0%	10	DF=1 not significant

* Significant at P≤0.05 ** highly significant at P≤0.01 *** very high significant at P≤0.001

Table no 16 shows the association between demographic variables and their level of pain in experimental group. Education, gestational age and Type of personality are significantly associated with their posttest level of pain .Statistical significance was analyzed using Pearson chi-square test/ Yates corrected chi-square test.

CHAPTER – V

DISCUSSION

This chapter deals with the discussion of results of the data based on the objective and hypothesis of the study. The problem stated is 'A study to assess the effectiveness of music therapy on the level of pain and anxiety among primi gravida mothers in selected Hospital, Madurai.

The study design used was pre test and post test design. It was decided to do the study with 60 samples in which 30 were experimental group and 30 were control group. The study was done in Government Rajaji Hospital, Madurai.

The results of the study have been discussed based on objectives stated for the study.

The first objective was to assess the level of pain and anxiety among primi gravida mother in first stage of labour in labour ward for the experimental group and control group.

In experimental group the mean pretest score difference in pain score 8.20 mean, posttest sore 4.03, the mean difference in pain score is 4.20, so the mothers were reduced 42% of pain score.

In control group, mean pre 8.07, posttest, 6.90, the difference in mean score 1.17, so mother were reduced 11.7% pain score.

So there is difference in pain score reduction among experimental (42%) and control group (11.7%).

The study supported by Phumcloung, Good. M (1984) conducted a study to find the effect of music on sensation and distrust of pain in those primiparous women during the active phase of the labor. The gate control of pain was the theoretical framework for the study. Randomization with a computerized minimization program was used to assign women to a music group (n=55) or a control group (n=55). Women in the intervention group listened to soft music without lyrics for 3 hours starting early in the active phase of labor. Dual visual analog scales were used to

measure sensation and distress of pain before starting the study and at 3 hardly post tests. While controlling for post test scores, one way repeated measures analysis of covariance indicated that those in the music group had significantly less sensation and distress of pain than did the control group F(I,l07)18.69, p<.OO1, effect size =.l5, and F(1,107)14.87, p<.OO1, effect sizel2 respectively. Sensation and distress significantly increased across the 3 hours in both groups (p<.0Ol), except for distress

The second objective was to assess the effectiveness of music therapy during first stage of labour in terms of pain reduction and anxiety in the experimental group

The mean value was 8.23 and SD was 1.19 in the experimental group, the mean value was 8.07 and SD was 1.12 in the control group, revealed that 't' value is 0.55, at p = 0.57 level. This indicates that there is no significant difference in pre test level of pain between experimental and control group.

The mean value was 85.23 and SD was 4.69 in the experimental group, the mean value was 84.53 and SD was 3.88 in the control group, revealed that 't' value is 0.62 at P = 0.53 level. This indicates that there is no significant difference in pretest level of anxiety between experimental and control group.

The study revealed that Angel Rajkumari (2008) conducted a study on effectiveness of music therapy in terms of level of pain perception among primi gravida mother in Southern Railway Hospital, Chennai. Based on non probability purposive sampling technique, 30 mothers were allotted for experimental and 30 mothers were allotted for control group. Music therapy was given to assess the level of labor pain perception. The pre and post assessment of level of pain was obtained using a modified combined Numerical Categorical Pain Intensity Scale. The findings of the study showed that comparison of pre and post assessment 't' value in session 1 was 21.53 and in session 11 ,the 't 'value was 21.05 which were significant at p<0.01level. It reveals that the primi gravida mother's pain perception level was reduced after music therapy.

The third objective was to compare the posttest level of pain and anxiety between experimental and control group

In experimental group 25 (83.3%) of them were having moderate pain and 5 (16.7%) of them were having excruciating pain. In control group24 (80.0%) of them were having severe pain and 6 (20.0%) of them were having excruciating pain.

In experimental group 27 (90.0%) of them were having high anxiety and 3 (10.0%) of them were having moderate. In control group 28 (90.0%) of them were having high anxiety and 3 (10.0%) of them were having high anxiety.

This study was supported by Lilly Podder (2005-2006) conducted an experimental study to evaluate the effects of music therapy on anxiety level, pain perception and labor outcome in mothers during first stage of labor in a selected hospital at Kolkota. Post test control group design was selected. Out of 60 samples 30 were to experimental and 30 were assigned to control group. The tool used for the study was a structured interview schedule for demographic data, structured record analysis proforma for labor assessment, State trait Anxiety Scale for anxiety assessment, Numeric Pain Intensity Scale for pain assessment and proforma for fetal and maternal outcome. The study reveals that those who were exposed to music therapy experienced significantly less pain and reduction in anxiety level during labor than the control group mothers.

The fourth objective was to associate the pain and anxiety with selected demographic variable in the experimental group.

Association between demographic variables and education of mother was significant there was significant chi-square $\chi^2 = 7.95$ P = 0.01** DF = 1 Significant. Association with support person was significant $\chi^2 = 3.84$ P = 0.05* DF = 1 significant. Personality was significant $\chi^2 = 6.89$ P = 0.01* DF = 1 Significant

The study revealed that Newmark Sammours (2004) conducted a study to determine factors affecting the use of music by women during childbirth and to compare the frequency of actual music use during childbirth and during prenatal labor. Results demonstrated that music provides an adjunct to childbirth that is highly desirable for some women, while unappealing or inconvenient for others.

The study supported that Clark (1986) and Winslow (1981) found that music serves several functions in the natural childbirth process including attention focusing, distraction from pain, stimulating pleasure responses, focusing breathing, and as a conditioned stimulus for relaxation. There were 20 subjects in this study. Thirteen experimental subjects received 6 pre natal music training sessions with a music therapist. Seven control group subjects did not receive the music therapy. After birth, the music therapist administered a childbirth experience questionnaire to each subject. Results indicated that the music group had higher success scores on 5 out of 7 indices of childbirth.

CHAPTER - VI

SUMMARY, RECOMMENDATIONS, LIMITATIONS AND CONCLUSION

SUMMARY

Midwives are the important health team members having the responsibility to provide comfort by means of holistic approach, for the women to cope up with the labour process. Keeping this in view, the researcher aimed to conduct a study to assess the effectiveness of music therapy in terms of level of pain perception among primi gravida mothers.

The objectives of the study were

1. To assess the level of pain and anxiety among primi gravida mother during first stage of labor for the experimental group and control group.

2. To assess the effectiveness of music therapy during first stage of labour in terms of pain reduction and anxiety in the experimental group.

3. To associate the pain and anxiety with selected demographic variable in the experimental group.

4. To compare the post test level of pain and anxiety between experimental and control group.

Review of literature facilitated the investigator to collect the relevant information to support the study, to design the methodology and to develop the tools.

According to Callista Roy's Adaptation Theory, in input assessment of pain among primi gravida mothers were done. Throughput was met by administering the nursing intervention such as music therapy. Output was obtained by valuation of post assessment level of pain perception.

The non equivalent control group pretest post-test design was designed by the to evaluate the effectiveness of music therapy with labour process in first stage of labour. Non probability purpose sampling technique was used to select the samples.

The numbers of samples were restricted to 60, in that 30 primi gravida mothers were allotted to experimental group and 30 primi gravida mothers were allotted to control group.

The investigator developed tool after reviewing the relevant literatures. It consists of the two parts.

Part A: Demographic Variables

Part B: Modified Combined Numerical Categorical Pain Scale Assessment Scale

Part C: State trait anxiety scale

MAJOR FINDINGS OF THE STUDY

- Majority of primi gravida mother 19 (63.3%) were in the age group of 19to 22 years in experimental group. Majority of primi gravid mother 15 (50.0%) control group were in control group.
- Pretest pain score in pretest in experimental group the mean pretest pain score was 8.23 and mean pretest in control group was mean pretest pain score was 8.07.
- Pretest anxiety score in experimental group anxiety score was 85.23 in control group the anxiety mean score was 84.5.
- Comparison of experimental and control group pain score in pretest experiment mothers are having 8.23 pain score was t = 0.55 p = 0.57 it is mall difference. In posttest experiment mothers are having 4.03 pain score t = 11.98 p = 0.001. Difference is large. This difference is statistically significant.
- In experimental group mothers are reduced their pain score from 8.23 to 4.03 after the administration of music therapy. The pain score was 4.20. t = 11.98 p = 0.001This reduction is statistically significant.
- In control group mothers are reduced pain score from 8.07 to 6.90 after the posttest. This reduction is statistically significant.
- Comparison of experiment and control group. In pretest, experimental mothers are having 85.23 anxiety score and control group mothers are having 84.53 anxiety score. The difference is 0.70 anxiety score. It is small difference

- In posttest the experimental mothers having 46.83 anxiety score and control group mothers are having 73.80 anxiety score. The difference is 26.97 anxiety score. Difference is large. This difference is statistically significant.
- In experimental group mothers are reduced their anxiety score from 85.23 to 46.83 after the administration of music therapy. Due to music therapy they are able to reduce 38.40 anxiety score from base line anxiety. This reduction is statistically significant.
- In control group mothers are reduced their anxiety score from 84.53 to 73.80 after the posttest. Due to routine care they are able to reduce 10.73 anxiety score from baseline anxiety. This reduction is statistically significant.
- After music therapy in experimental group 50% of mothers are having low anxiety. 50.0% from the having moderate anxiety. The chi-square is $\chi^2 = 39.13$ DF = 2 significant.
- In control group 26.7% mothers are having moderate anxiety, 73.3% of them having high anxiety.
- Effectiveness of music therapy in experiment mothers are reduces 42.0% of pain score where as in control patients are reduced 11.7% pain score.
- In experiment mothers are reduced 38.40% of anxiety score where as in control mothers are reduced 10.73% anxiety score.
- The association between demographic variables and their level of pain in experimental group. Education, $\chi^2 = 7.95$ P = 0.01 DF = 1 significant, support person, $\chi^2 = 3.84$ P = 0.05 DF = 1 significant, Type of personality $\chi^2 + 6.89$ P = 0.01 DF = 1 significant.
- The association between demographic variables and their level of anxiety in experimental group. Education $\chi^2 = 5.00$ P = 0.02 DF = 1 significant. Type of personality $\chi^2 = 9.60$ P = 0.01 DF = 1 significant, Gestational age $\chi^2 = 5.04$ P = 0.02 DF = 1 significant.

The study concluded that labour process is a physiological phenomenon in which almost all women experiences pain. The primi gravida mothers who used the music therapy as a relaxation technique shows the decreased level of pain perception were reduced. The primi gravida mothers who had not used the music therapy showed increased Level of pain perception.

IMPLICATIONS

Society has tremendous technological advancement in day to day life. Therefore nurse practitioners in the field of maternity can help in supporting the women throughout the labour to provide comfort in order to assure the best possible outcome.

This study has its implication in nursing practice, nursing education, nursing administration and nursing research.

Nursing practice

Nurses have a vital role in conducting and managing normal deliveries. Today nurses were in a position to adopt non pharmacological method for safe delivery.

The finding of the study clearly highlights the importance of music therapy to the women during labour. Educational programme conducted by the nursing personnel both in the hospital and community helps,

1. To gain adequate knowledge regarding relaxation technique to reduce pain perception.
2. To develop her professionally independently by displaying the music therapy for the patients with pain perception.
3. Develop ability to exhibit coping ability of the women with labour pain.
4. Learn about accurate assessment of labour pain with the use of appropriate pain scale.
5. Understand the importance of music therapy as an alternative complementary therapy in the field of obstetrics.
6. Teaching primi mothers about the benefits of music therapy in reduction of labour pain perception.
7. Promote the use of music therapy in labour pain management and minimize the requirements of narcotic analgesics.

Nursing Education

1. Non-pharmacological method of pain management during first stage of labour should be taught to the students.

2. Motivate the students to apply music therapy to mothers when they are in the clinical.

3. Nurse educator should motivate the women with labour to use the music as a relaxation technique to reduce anxiety and pain perception level.

4. Conduct in service education regarding music therapy in pain reduction in various fields of nursing.

5. Ensure that students learn about the importance of music therapy as an alternative complementary therapy as an independent nursing intervention.

6. Provide adequate clinical exposure in students settings where music therapy can be effectively and safely used as a midwifery approach in the reduction of labour pain perception.

7. Educational institution can arrange and conduct workshops, conferences, and seminars on music therapy as an evolving intervention to the students staff and midwives.

8. Make available literatures related to music therapy in labour pain management in the library for student's references.

9. Educators can encourage budding nurse midwives to bring out innovative and creative ideas pertaining to effective and safe management of labour pain.

10. Educators can encourage students for the effective utilization of research based practice.

Nursing Administration

1. The nurse administrator should be efficient in organizing programmes regarding information on relaxation techniques for relief of pain and anxiety.

2. A special nurse can be appointed to provide the antenatal childbirth education to select appropriate therapy during labour.

3. Nurse administrator must plan and organize education programme regarding technique for nursing personnel and other team members to update their knowledge.

4. Nurse administrator helps in organizing the resources and encouraging the midwives to use music therapy.

5. Nurse administrator helps to evaluate the patient satisfaction periodically.

6. A continuing education programme and in service education programmes can be conducted on the therapeutic effects and advantages of music therapy.

7. Nurse administrator can arrange for a public awareness programmes regarding the effectiveness of music therapy in reduction of labour pain.

Nursing Research

8. This study provides scope for further research related to various relaxation techniques and other non pharmacological method of pain management during labour.

9. More studies need to be conducted by comparing different ragas.

10. Nurse researchers can promote more research in this evolving discipline of music therapy.

11. As evident from the review of literature, more research needs to be warranted on this discipline.

12. Disseminate the findings through conferences, seminars, publications in professional, national and international journals and World Wide Web.

RECOMMENDATIONS

1. A similar study can be done in large groups.
2. A similar study can be conducted by different types of music.
3. A similar study can be conducted on immediate postnatal mothers.

CONCLUSION

The present study assessed the effectiveness of music therapy on pain perception and anxiety among primi gravida mother the result revealed that the level of pain will anxiety as been reduced com moderate to mind. Hence the investigator concluded that music therapy is effective on pain perception and anxiety level in primi gravida mother.

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INSTITUTIONAL REVIEW BOARD / INDEPENDENT ETHICS COMMITTEE

Govt.Rajaji hospital and Madurai Medical Collage, Madurai 625020.

Proceedings and recommendations of the IRB / IEC meeting held on 31.03.20 11

The Institutional Review Board/ Independent Ethics Committee of the Govt. Rajaji Hospital and Madurai Medical College, Madurai 625020 met on the 31.03.2011 at 12 noon, when the following members were present.

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1. Dr.S.M.Sivakumar, M.S (Gen. Surgery)	M.S, Govt. Rajaji Hospital, Madurai.	Convener
2. Dr.N.Vijayasankaran, M.Ch (Uro.)	Sr. Consultant Urologist Madurai Kidney Centre, Sivagangai Road, Madurai	Chairman
3. Dr.T.Meena, MD or Dean I/c (MMC)	Professor of Physiology, Madurai Medical College	Member
4. Dr.Moses K.Daniel MD (Gen.Medicine)	Professor of Medicine Madurai Medical College	Member
5. Dr.M.Gobinath, MS (Gen. Surgery)	Professor of Surgery Madurai Medical College	Member
6. Dr.B.K.C.MohanPrasad, M.ch, (Surg. Oncology)	Professor of Surg.Oncology Madurai Medical College	Member -Secy.
7. Shri.M.Sridher, B.Sc.B.L.	Advocate, 623-B.ll.Floor, East II Cross, K.K.Nagar, Madurai.20.	Member
8. Shri.O.B.D.Bharat, B.sc.,	Businessman Plot No.588, K.K.Nagar.Madurai.20.	Member
9. Shri.S.Sivakumar, M. A (Social) M.Phil	Sociologist, Plot No.51 F.F, K.K Nagar, Madurai.	Member

The Committee considers the 45 dissertations / research / study Proposal submitted by PG students / Non Medical students from outside the institution as per agenda. After discussion, the following dissertations I records / study proposals are approved.

Mrs.S.Lillypushpam	Second Batch M.Sc Nursing M.M.C Madurai.	"To assess the effectiveness of music therapy on pain perception and anxiety level in first stage of labour in labour ward at Government Rajaji Hospital, Madurai"

Medical Superintendent

LETTER SEEKING PERMISSION FOR PILOT STUDY

From

S.Lilly Pushpam,
M.Sc. (N) I year,
College of Nursing,
Madurai Medical College,
Madurai - 20.

To

PROFESSOR AND HEAD OF THE DEPARTMENT,
DEPARTMENT OF OBSTETRIC AND GYNEACOLOGY,
GOVERNMENT RAJAJI HOSPITAL,
MADURAI.

Through: The proper channel

Respected Madam,

Sub: Requesting permission to conduct pilot study on the topic

To assess the effectiveness of music therapy on pain perception and anxiety level in first stage of labour in labour ward at government rajaji hospital, madurai.

I am First Year M.Sc. Nursing student of College of Nursing, Madurai Medical College, Madurai. In Partial fulfillment of Master Degree in Nursing, I have selected the above topic for the dissertation to submit to the Dr.M.G.R Medical University, Chennai. I request you to kindly give me permission to conduct pilot study in the labour ward. Kindly do the needful.

Thanking you,

Madurai-20.

Yours Sincerely,

Principal
COLLEGE OF NURSING
Madurai Medical College
Madurai-20.

Forwarded
S.P
9/4/11

LETTER SEEKING PERMISSION FOR CONTENT VALIDITY FOR TOOL

From

S.Lilly Pushpam,
M.Sc. (N) I year,
College of Nursing,
Madurai Medical College,
Madurai - 20.

To

The Professor & H.O.D,

Department of Obstetrics and Gynecology,

Sara College of Nursing,

Dharapuram.

Through: The proper channel

Respected Madam,

Sub: Requesting permission to conduct a Dissertation studies – regarding.

As per the Curriculum recommended by the Indian Nursing Council and The Tamilnadu Dr.M.G.R. Medical University, all the M.Sc Nursing Students are required to conduct a dissertation study for the partial fulfillment of the course.

I have selected a study topic "To assess the effectiveness of music therapy on pain perception and anxiety level in first stage of labour in labour ward at Government Rajaji Hospital, Madurai" for my dissertation. I would like to select patient from the postnatal ward.

So I kindly request you to consider my request and allow me to conduct the study in your esteemed institution.

Thanking you,

Madurai-20.

23-02-2011

Yours sincerely,

S.Lilly Pushpam

Principal
COLLEGE OF NURSING
Madurai Medical College
Madurai-20.

CERTIFICATE OF VALIDATION

This is to certify that the tool,

Section 1: Demographic data

Section II: Questionnaire on Music opinion

Section III: Pain assessment scale (Modified combined numeric categorical), Visual analog scale

Prepared by Mrs. S.Lilly Pushpam 1 year M.Sc (N) student of Government Rajaji Hospital, Madurai who has undertaken the study field titled of "To assess the effectiveness of music therapy on pain perception and anxiety level in first stage of labour in labour ward at Government Rajaji Hospital, Madurai" has been validated by me

SARA NURSING COLLEGE
ERODE-DT-638 673
DHARAPURAM

11/4/04

SIGNATURE OF THE EXPERT

Head of the Department
Obstetric / Gynac. Nursing

NAME: R. Mary Sumathi

DESIGNATION: READER

DATE: 11.04.11.

CERTIFICATE OF VALIDATION

This is to certify that the tool,

Section 1: Demographic data

Section II: Questionnaire on Music opinion

Section III: Pain assessment scale (Modified combined numeric categorical), Visual analog scale

Prepared by Mrs. S.Lilly Pushpam 1 year M.Sc (N) student of Government Rajaji Hospital, Madurai who has undertaken the study field titled of "To assess the effectiveness of music therapy on pain perception and anxiety level in first stage of labour in labour ward at Government Rajaji Hospital, Madurai" has been validated by me

SIGNATURE OF THE EXPERT

NAME:

DESIGNATION: PROFESSOR

DATE:

CERTIFICATE OF VALIDATION

This is to certify that the tool,

Section 1: Demographic data

Section II: Questionnaire on Music opinion

Section III: Pain assessment scale (Modified combined numeric categorical), Visual analog scale

Prepared by Mrs. S.Lilly Pushpam 1 year M.Sc (N) student of Government Rajaji Hospital, Madurai who has undertaken the study field titled of ""To assess the effectiveness of music therapy on pain perception and anxiety level in first stage of labour in labour ward at Government Rajaji Hospital, Madurai"" has been validated by me

SIGNATURE OF THE EXPERT

NAME: P. Shanthi

DESIGNATION: Reader
C.S.I. Jeyaraj Annapackiam CON
Pasumalai, Madurai.

DATE: 20/4/11.

CERTIFICATE OF VALIDATION

This is to certify that the tool,

Section 1: Demographic data

Section 11: Questionnaire on Music opinion

Section IH: Pain assessment scale (Modified combined numeric categorical), Visual analog scale

Prepared by Mrs.S.Lilly Pushpam 1 year M.Sc (N) student of Government Rajaji Hospital, Madurai who has undertaken the study field titled of "A study to assess the effectiveness of music therapy on pain perception and anxiety level in first stage of labour in labour ward at Government Rajaji Hospital, Madurai" has been validated by me.

SIGNATURE OF THE EXPERT

NAME: Dr (Mrs) C. RAJAMANI

DESIGNATION ASST. PROFESSOR

DATE: 10.02.12

xg;Gjy; mwpf;if

எனக்கு இந்த ஆய்வைப்பற்றிய முழு விவரம் விளக்கமாக எடுத்துரைக்கப்பட்டது. இந்த ஆய்வில் பங்குபெறுவதில் உள்ள நன்கைள் மற்றும் தீமைகள் பற்றி நான் புரிந்து கொண்டேன். நான் இந்த ஆய்வில் தானாகவே முன்வந்து பங்கு பெறுகிறேன். மேலும் எனக:கு இந்த ஆய்வில் இருந்த எந்த நேரமும் விலகிக்கொள்ள முழு அனுமதி வழங்கப்பட்டுள்ளது. என்னுடைய சிகிச்சை ஆவணங்களைப் பார்வையிட்டு அதில் உள்ள விவரங்களை ஆய்வில் பயன்படுத்திக் கொள்ள அனுமதி அளிக்கின்றேன். என்னுடைய பெயர் மற்றும் அடையாளங்கள் ரகசியமாக வைத்துக் கொள்ளப்படும் என்றும் எனக்கு உறுதியளிக்கப்பட்டுள்ளது.

இப்படிக்கு,

QUESTIONNAIRE

Demographic Data

1. Age of mother (in completed years) ☐
   a. 19- 22yrs
   b. 23 – 26yrs
   c. 27 – 30yrs
   d. 31 - 35yrs

2. Educational status ☐
   a. No formal education
   b. Primary education
   c. Higher secondary education
   d. Graduates.

3. Area of residence ☐
   a. Urban
   b. Suburban
   c. Rural

4. Type of family ☐
   a. Joint
   b. Nuclear
   c. Extended family

5. Life style ☐
   a. Sedentary
   b. Heavy
   c. Moderate

6. Religion ☐
   a. Hindu
   b. Muslim
   c. Christian
   d. Others

7. Occupation ☐
    a. Home maker
    b. Business
    c. Self employment
    d. Government employment

8. Income (amount) ☐
    a. Rs. < 5000
    b. Rs. 4001 - 5000
    c. Rs. 3001 - 4000
    d. > Rs.3000

9. Support person ☐
    a. Mother
    b. Mother in law
    c. Sister
    d. Husband

10. Type of personality ☐
    a. Intra vert
    b. Extra vert

OBSTETRICAL VARIABLES:

1. Gestational age ☐
    a. 37 – 38 wks
    b. 38 - 39
    c. 39- 40 wks

2. **Cervical Dilatation** ☐
    a. 4 - 6 cms
    b. 6 - 8 cms
    c. More than 8cms

3. Head station ☐
    a. - 1 station
    b. 0 station
    c. +1 station

tpdhg;gbtk;

1. taJ (Mz;Lfspy;)

அ) 19 முதல் 22 வரை
ஆ) 23 முதல் 26 வரை
இ) 27 முதல் 30 வரை
ஈ) 31 முதல் 35 வரை □

2. fy;tpj;jFjp

m) mbg;gil fy;tp ngwhjth;
M) njhlf;f fy;tp fw;wth;
,) Nky;epiyf;fy;tp fw;wth;
<) fy;Yhhpapy; gapd;wth;

□

3. trp;f;Fk; ,lk;

m) fpuhkk;
M) efuk;
,) fpuhkk; rhh;e;j efuk; □

4. FLk;g tif

m) jdpf;FLk;gk;
M) $l;Lf;FLk;gk;
,) njhlh;FLk;gk; □

5. tho;f;ifj;juk;

m) kpjkhd Ntiy
M) fbdkhd Ntiy
,) kpf fbdkhd Ntiy
<) mq;f mirtpy;yhj Ntiy □

6. kjk;

m) ,e;J
M) K];ypk;
,) fpwp];jth;
<) gpw kjj;jth; □

6. njhopy;

m) tPl;L Ntiy

M) jdpahh; epWtdj;jpy; gzpGhpgth;

,) Ranjhopy; nra;gth;

<) muR Ntiy nra;gth; ☐

7. FLk;g tUkhdk; (xU khjj;jpw;F)

m) &.5>000 kw;Wk; mjw;Fk; Nky;

M) &.4>001 Kjy; &.5>000 tiu

,) &.3001 Kjy; &.4>000 tiu ☐

<) &.3>000 kw;Wk; mjw;Fk; fPo;

8. cjtpahf ,Ug;gth;

m) jhahh;

M) rpj;jp

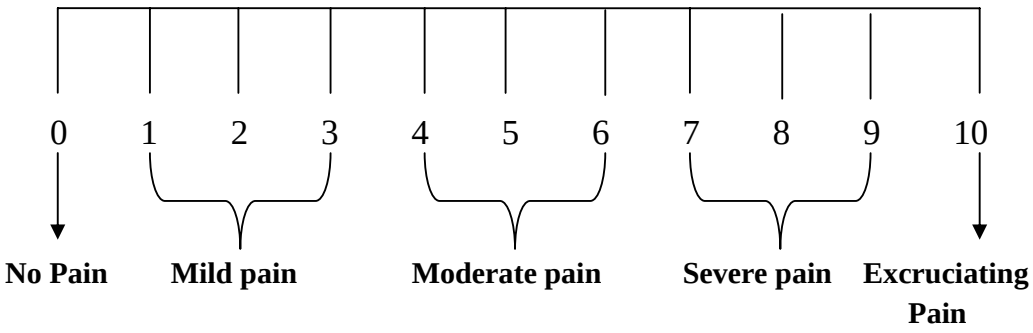
,) mf;fh my;yJ jq;if

<) fzth; ☐

PAIN ASSESSMENT SCALE

(MODIFIED COMBINED NUMERIC CATEGORICAL)

வலி அளவுகோல்



0	-	No Pain	-	வலி இல்லை
1-3	-	Mild pain	-	லேசான வலி
4-6	-	Moderate pain	-	மிதமான வலி
7-9	-	Severe pain	-	கடுமையான வலி
10	-	Excruciating pain	-	தாங்கமுடியாத கடுமையான வலி

gbtk; -M

jpUj;jpaikf;fg;gl;l];Nll; bnua;bd; kd czh;it kjpg;gpLk; gl;bay;

பின்வரும் 25 கூற்றுகள் உங்கள் மன உணர்வைப்பற்றி கேட்கப்பட்டுள்ளன. இதில் சரி / தவறு என்று பதில் கிடையாது. இவற்றில் சரியானது என்று நீங்கள் உணர்வதை வட்டமிடவும்.

வ. எண்	கூற்றுகள்	இல்லை	ஓரளவு	மிதமாக அளவு	அதிக அளவு
1.	நான் அமைதி நிலையில் இருக்கிறதாக உணர்கிறேன்.	4	3	2	1
2.	நான் பாதுகாப்பாக உள்ளதாக உணர்கிறேன்.	4	3	2	1
3.	நான் மன இறுக்கத்துடன் இருக்கிறேன்.	1	2	3	4
4.	நான் மன அழுத்தம் இருப்பதாக உணர்கிறேன்	1	2	3	4
5.	என் மனம் இலகுவாக இருப்பதாக உணர்கிறேன்.	4	3	2	1
6.	நான் பாதிப்படைந்து இருப்பதாக உணர்கிறேன்	1	2	3	4
7.	வரப்போகும் துரதிஷ்டங்களை நினைத்து தற்போது வருத்தப்படுகிறேன்.	1	2	3	4
8.	நான் திருப்தியுடன் இருப்பதாக உணர்கிறேன்.	4	3	2	1
9.	நான் பயப்படுவதாக உணர்கிறேன்.	1	2	3	4
10.	நான் தன்னம்பிக்கையுடன் இருப்பதாக உணர்கிறேன்.	4	3	2	1
11.	எனக்கு நடுக்கம் இருப்பதாக உணர்கிறேன்	4	3	2	1
12.	எனக்கு நடுக்கம் இருப்பதாக உணர்கிறேன்	1	2	3	4
13.	நான் திகைக்கிறேன்	1	2	3	4
14.	நான் முடிவு எடுக்க முடியாதவர் போல் நினைக்கிறேன்.	1	2	3	4
15.	என் மனம் அமைதியாக இருப்பதாக உணர்கிறேன்	4	3	2	1
16.	நான் நம்பிக்கையுடன் இருப்பதாக உணர்கிறேன்	4	3	2	1

வ. எண்	கூற்றுகள்	இல்லை	ஓரளவு	மிதமாக அளவு	அதிக அளவு
17.	நான் கவலையுடன் இருக்கின்றேன்	1	2	3	4
18.	நான் மனக்குழப்பத்துடன் இருப்பதாக உணர்கிறேன்	1	2	3	4
19.	நான் மன உறுதியுடன் இருக்கின்றேன்	4	3	2	1
20.	நான் மகிழ்ச்சியாக இருப்பதாக உணர்கிறேன்.	4	3	2	1
21.	நான் சக்தியை இழந்தது போல் உணர்கிறேன்.	1	2	3	4
22.	நான் நம்பிக்கையை இழந்தாற்போல் நினைக்கிறேன்	1	2	3	4
23.	நான்குறைவான மதிப்புடையவனாக / தவறிழைத்தவனாக கருதுகிறேன்	1	2	3	4
24.	நான் நன்றாக இருப்பதாக உணர்கிறேன்.	4	3	2	1
25.	நான் உடல்நலம் தேர்வேன் என்று எண்ணுகிறேன்	4	3	2	1

பின்குறிப்பு: *- எதிர்மறை வாக்கியங்கள்

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